UNITED STATES DEPARTMENT OF AGRICULTURE

BULLETIN No. 492

Office of the Secretary

Contribution from the Office of Farm Management

W. J. SPILLMAN, Chief

Washington, D. C. PROFESSIONAL PAPER February 10, 1917

AN ECONOMIC STUDY OF FARMING IN SUMTER COUNTY, GA.

By

H. M. DIXON, Assistant Agriculturist, and H. W. HAWTHORNE, Scientific Assistant

CONTENTS

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By H. M. Dixon, *Assistant Agriculturist*, and H. W. Hawthorne, *Scientific Assistant*.

CONTENTS.

INTRODUCTION.

This bulletin embodies a study undertaken with a view to determining the relative importance of the several factors which made for success or failure in the management of representative farms in central Georgia. An analysis was made of the business of each of 534 such farms in Sumter County to bring out the economic significance of such factors as tenure, size of farm, farm organization, crop yield, and cost of cotton production.[1]

The Sumter County area, where the study was made, is strictly a cotton-growing section, more than one-half of the land in cultivation being devoted to that crop and 89 per cent of all farm receipts coming from that source. Roughly speaking, one-third of all farm lands in the county are in cotton, one-third in woods, and the remainder in other crops and pasture. The farms studied vary in size from the 50-acre tenant farm to the 5,000-acre plantation. On about one-fourth of the farms the owner reduces risk and responsibility by rent-

[1] The authors wish to acknowledge their indebtedness to the many farmers of Sumter County through whose courteous cooperation this work was made possible.

Note.—This bulletin is a report on an exhaustive study of farming in a representative county in the cotton belt and is of interest to cotton growers especially.

ing out part of his acreage. Of 217 farms operated by colored farmers, only a few are owned, and nearly all are of less than 100 acres. Seven out of every ten of these farms are worked almost entirely by the negro operator and his family. The general system of operation in vogue in Sumter County is typical of farming operations throughout a large part of the cotton belt.

SUMMARY OF RESULTS.

Following is a brief résumé of the more significant facts brought out or substantiated by this investigation:

Farm profits on these farms for the year of the survey (1913) were in direct proportion, both to the number of acres in crops and the yield of cotton per acre.

On farms of approximately the same size, labor incomes were high when the yield of cotton was high and low when the yield was low.

On owner farms of approximately the same size labor incomes were high when percentage of crop area in cotton was high, and vice versa.

The white farmers of the area are getting a much higher yield per acre than the colored farmers.

Cotton, corn, oats, and cowpeas, in order, are the more important crops of the region.

Cotton occupies 59 per cent of the tilled area of the farms surveyed and returns 89 per cent of the total farm receipts.[1]

Corn occupies over one-fourth of the tilled area and was grown on every farm visited. Oats are the principal small-grain crop and are also used for hay and pasture. Cowpeas for hay and seed occupy about half as much land as corn. About 85 per cent of the land utilized for a second crop in 1913 was in cowpeas.

The cost of producing cotton, computed for 534 farms, was found to average about 10.5 cents per pound of lint.

The cost of producing cotton on these farms decreases with increase in size of farm. The relative rate of reduction in cost due to increase in acreage is greater for the farms ranging from small to medium than for those ranging from medium to large.

The cost of producing cotton on these farms decreases with increase in yield per acre. The reduction due to increased yield is relatively greater for farms with yields ranging from low to medium than for farms with yields ranging from medium to high.

On farms with high yields of cotton per acre the cost per acre was high but the cost per pound low.

Aside from work stock, hogs constitute the most important class of live stock.

Of the cash expenditures of these farms, labor and fertilizer together represent three-fourths or more of the total.

In efficiency in utilizing labor, mules, and machinery, the large farms have a great advantage over the small ones. On the small white-owner farm one mule works 10 acres of cotton and 11 acres of other crops, while on the large farm one mule works 19 acres of cotton and 10 acres of other crops.

[1] This percentage of receipts is based on a price of 12 cents per pound.

The cotton type of farming enables men with but very little capital to begin farming. The average capital of colored tenant farmers was but $491, yet the average income of these negroes and their families was $506.

On the white-owner farms the intensive type of farming practiced in this section raises cash expenditures to over 60 per cent of total receipts. If the receipts from cotton should at any time fall off 40 per cent from the average for 1913, these farms would barely pay expenses and would return nothing for capital or for labor done by the operator.

The colored share cropper realizes 50 pounds of cotton and 4 bushels of corn more per acre than the colored tenant.

SOURCES OF INFORMATION.

The best source of agricultural information is the farm. From the individual farmer who has long years of experience may be obtained data that will determine approximately the factors which govern his income. A consensus of such individual data will determine approximately the factors which govern the prosperity of any agricultural region. In the agricultural region involved in this study, devoted almost exclusively to one type of farming, can be found examples of various forms of farm organization and of various farm methods and practices. Some of the farms in this region are yielding much larger profits than others. Some farmers through efficient operation are realizing a good annual income and at the same time building up their farms, while others who are apparently working just as earnestly are barely able to make both ends meet. The data secured in such an investigation as this serve to bring out in relief the vital factors of farm practice which account for this difference. The data presented herewith, representing the experience of 534 southern farmers, should be applicable, not only to the area covered by the study, but to a large portion of the southern district where like conditions and a like type of farming prevail.

AREA STUDIED.

Sumter County is in the southwestern part of Georgia (see fig. 1). Americus, the county seat, situated near the center of the county, is about 150 miles south of Atlanta, 185 miles west of Savannah, and 95 miles north of the Florida State line. Practically the entire county is represented in this study, except small areas in the northeastern and northwestern districts.

HISTORY.

The county was laid out in 1831 from part of Lee County. The first inhabitants came mostly from the older districts of the State. The present population is 29,092, of which 7,849 are white and 21,243

are colored. The county contains 291,840 acres, of which 276,834 acres are in farms. The land was originally owned in very large tracts, but during recent decades many of these large farms have been cut up, so that there now exist a good many small and medium-sized farms.

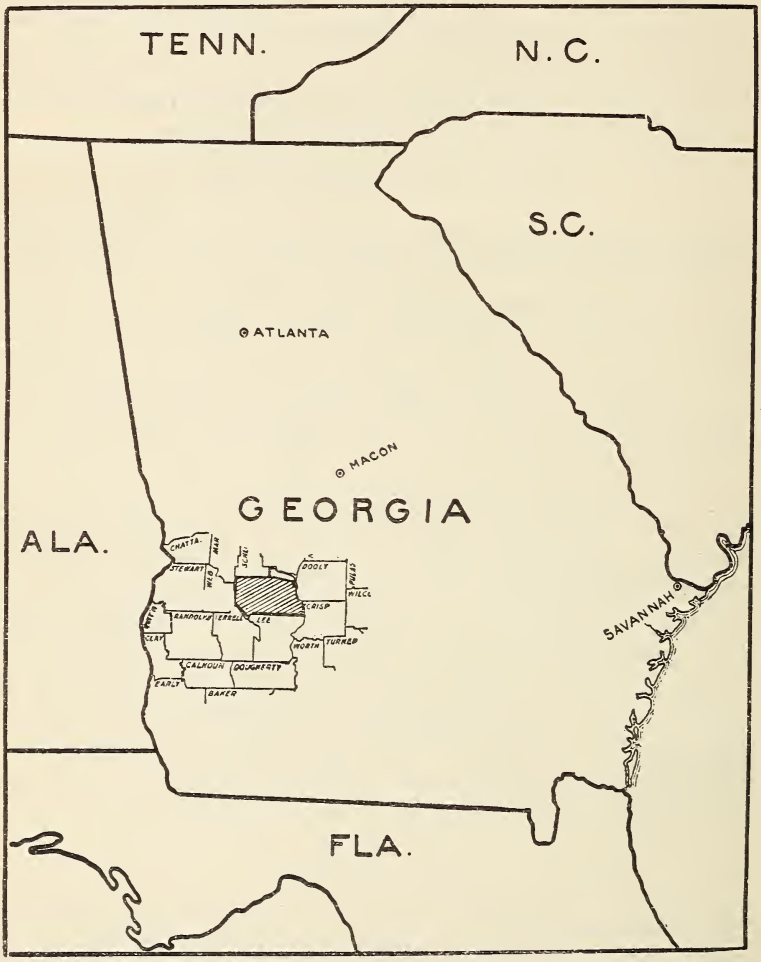

FIG. 1.—Shaded area shows location of county in which farms studied were located (Sumter County, Ga.).

The county is served by two railroads, which furnish very good transportation facilities. The main line of the Central of Georgia crosses the county from north to south through Americus. The Seaboard Air Line enters the county on the west and, passing through Plains, goes northeast to Americus, thence southeast through the small towns of Leslie, Desoto, and Cobb in the southeastern section of the county. Practically all the main wagon roads of the county are in excellent condition.

SOILS AND TOPOGRAPHY.

Sumter County lies wholly within the Coastal Plain, its northern boundary being 28 miles south of the Piedmont line.[1] The soils are predominantly sandy, this type occupying about 75 per cent of the total land area of the county.[2]

The topography of the county varies from very rolling in the northern portion to very gently rolling or flat in the southern part. The general slope is from northwest to southeast, and practically all the streams flow in a southeasterly direction.

CLIMATE.

The climate of this county is characterized by summers long but not extremely hot, and short, mild winters.

The average rainfall as recorded by the United States Weather Bureau at Americus, Ga., for the 10 years 1904 to 1913, inclusive, was 47 inches. (See fig. 2.) October and November are the two months with the lowest average rainfall during this period. During the 10 years there was an average of 24 inches of rainfall from April 1 to September 30, which is an abundance for crop production in this region when distributed over this period as evenly as is shown by figure 2.

The rainfall for the year of the study (1913) was 45 inches, or only 2 inches below the 10-year average. During that year the rainfall was well distributed throughout the growing season. It was a little below normal during the months of April and May, but for

[1] Soil Survey, Sumter County, Ga., U. S. Dept. of Agriculture, Field Operations of the Bureau of Soils, 1911.

[2] The most important soil division of the county, one which occupies 88.7 per cent of its total land area, comprises the soils derived from unconsolidated water-deposited material under good drainage conditions. This soil division contains four distinct series. The first and most important is the Greenville. The soils of this series are of a reddish-brown to dark red color, with a dark red subsoil. This series occupies 63.9 per cent of the total land area of the county. The Norfolk soil series is second in importance and occupies 16.9 per cent of the area of the county. The Norfolk soils are characterized by the gray color of the surface soils and the grayish-yellow to yellow color of the subsoils. This series also has a somewhat lower agricultural producing value than the Greenville series. The Orangeburg soil series occupies only 2.5 per cent of the land area of the county. The soils of this series are of a gray color, with red subsoils. The Orangeburg soils are closely related to the Greenville, differing mainly in the gray color and loose structure of its soils, the subsoil being quite like that of the Greenville. The several types of the Orangeburg series are not so productive as the corresponding types of the Greenville series. The fourth series of this division is represented by the Tifton soil and occupies 5.4 per cent of the area of the county. These soils are gray to brown in color, with yellow subsoils. Ironstone pebbles are abundant.

The second soil division of agricultural importance to this region is known as the Portsmouth series. This soil comprises 2.9 per cent of the land area of the county. The Portsmouth soils, formed under poor drainage conditions, from probably the same material that gives rise to the Greenville, Orangeburg, Norfolk, and Tifton, are characterized by the dark-gray to black color of the surface soil and the light-gray or mottled gray, yellow, and red of the subsoil.

Other soil divisions which are of only minor importance to the agricultural region as a whole are the Sumter stony sandy loam, the low meadow land, the swamp land, and the old alluvial soil.

June, July, August, and September there was an average of 4.8 inches of rainfall per month.

METHOD OF PROCEDURE.

The method used in getting together the data upon which this bulletin is based was adopted by the Office of Farm Management after long experience with different means and methods.[1]

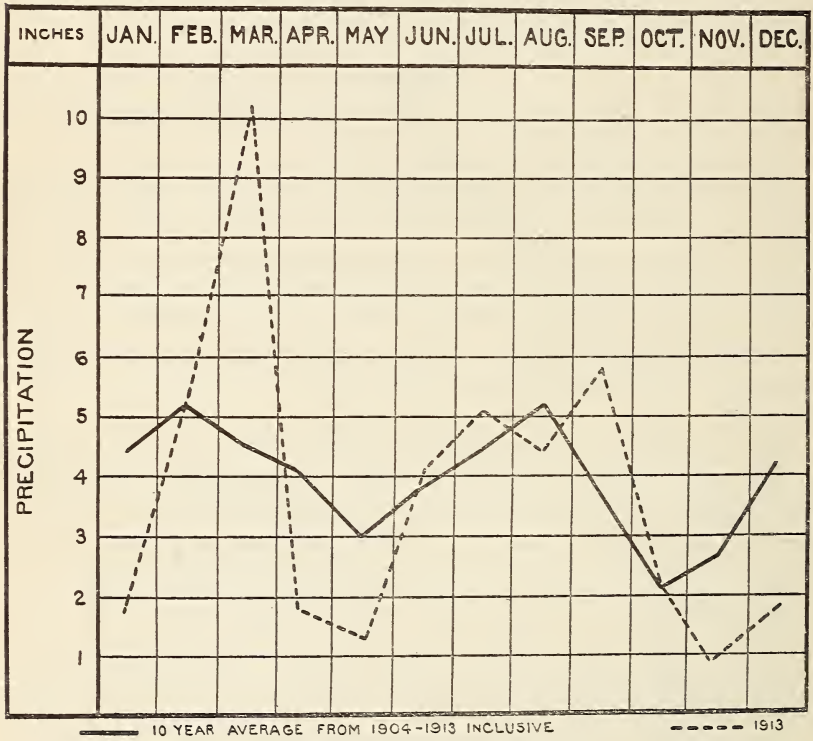

FIG. 2.—A comparison of the rainfall of Sumter County in 1913 with the 10-year average from 1904 to 1913, inclusive.

During the months of April and May, 1914, investigators from the Office of Farm Management familiar with southern agriculture visited Sumter County and made a study of farm-management problems in that region. These men visited each farm in this locality and made a complete record of a year's business transactions, together with an inventory of all the farm investment for the beginning and for the end of the farm year. The farm year in this locality extends from January 1 to January 1, and the particular year

[1] An outline explaining the use of this method, together with copies of the blank forms used, may be obtained by applying to the U. S. Department of Agriculture for Farmers' Bulletin 661.

to which these data pertain is 1913. In all, records from 665 farms were received, but as a number of these were incomplete or obviously inaccurate, only 534 records were used for the basis of this study.[1]

UTILIZATION OF THE FARM AREA.

The farms in this area range in size from about 50 acres to over 5,000 acres. On many of them a large proportion of the acreage is in woodland, which is seldom used except for supplying wood for the upkeep of buildings and fences, and on a few of the farms in supplying a little winter employment in cutting wood for sale. On account of a very wide variation among individual farms in the proportion of the total area that is used for the farm business, it was necessary in this study to use as a measure of the farm business the number of acres of tilled land rather than the total number of acres. In all tables in this bulletin where farms are classified into groups by size of farm, the area of tilled land is used as the basis.

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[1] In order to present the data clearly, certain terms which will be used throughout the discussion are here defined. It is important that the reader thoroughly understand these terms, as they will materially assist in the interpretation of the results.

Tilled area.—The tilled area is the number of acres of the farm devoted to raising crops.

Farm capital.—The farm capital is the average value of all real estate, improvements, machinery, live stock, and other investment necessary to carry on the farm business. It includes the value of the farmhouse, but not the household furnishings.

Receipts.—The farm receipts include the amount received from the sale of crops, the net increase from stock, and the receipts from outside labor, rent of buildings, etc. The net increase from stock is found by subtracting the sum of the amount paid for stock purchases and the inventory value at the beginning of the year from the sum of the receipts from stock products, sales of live stock, and the inventory value at the end of the year. If the value of crops or supplies was greater at the end of the year than at the beginning, the difference was considered a receipt.

Expenses.—The farm expenses represent the amount of money paid out during the year to carry on the farm business, plus the value of the labor performed by the family. If the value of crops or supplies at the end of the year was less than at the beginning, this was considered an expense. Household or personal expenses are not included.

Farm income.—The farm income is the difference between the receipts and expenses. It represents the amount of money available for the farmer's living above the value of family labor, provided he has no interest to pay on mortgages or other debts.

Labor income.—The labor income is the amount that the farm operator has left for his labor after 5 per cent interest on the average capital is deducted from the farm income. It represents what he earned as a result of his year's labor after the earning power of his capital has been deducted. In addition to the labor income the operator received a house to live in, fuel (when cut from the farm), garden products, milk, butter, eggs, etc.

Owner.—The term "owner" is applied when the entire operation of a farm is directed by the man who owns the farm or by someone hired in his stead.

Owner additional.—The term "owner additional" is used when the man who owns and directs the operation of a farm rents additional land and operates it in connection with his own as one farm.

Owner with part rented out.—When a man owns a farm and directs the operation of part of it, renting the other part out for a specified amount, and assuming little or no responsibility for its operation, he is termed an owner with part rented out.

Tenant.—When a man rents a farm, furnishes all labor and equipment, directs its entire operation, and pays the landlord cash or a fixed amount of cotton for the use of the land he is termed a tenant.

Landlord.—The landlord is the person who owns a farm which is rented to a tenant.

A general idea of the way in which the land in this county is utilized may be formed by a glance at figure 3. Crop land occupies something over one-half (54.2 per cent) and woodland about one-third (32.6 per cent) of the total farm area. The remainder of the land is in waste, pasture, and idle crop land, the idle crop land occupying almost as much as the pasture land, and the waste land occupying a little more than these two combined.

In Table I the 268 farms operated by white owners are arranged in six groups by size of farm, in order to show the utilization of land and the value of real estate per acre on farms of different size. The farms in these groups vary in average size from a total farm area of 63 acres with 33 acres of crops in the first-size group, to a total of 1,625 acres with 827 acres of crops in the last-size group.

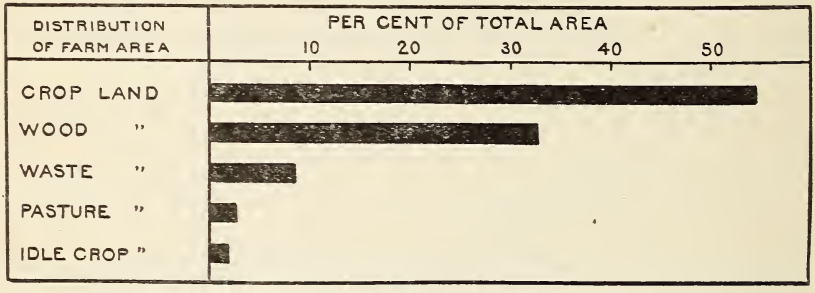

FIG. 3.—Percentage distribution of land area on 268 farms, Sumter County, Ga.

TABLE I.—*Utilization of land and value of real estate per acre on 268 farms operated by white owners, owners additional, and owners with part rented out (Sumter County, Ga.).*

Item.	Groups of farms based on tilled area per farm.						All farms.
	50 acres and less.	51 to 100 acres.	101 to 150 acres.	151 to 250 acres.	251 to 450 acres.	Over 450 acres.	
Number of farms	36	64	56	47	30	35	268
Area per farm.....acres	63	151	201	325	566	1,625	419
Tilled area per farm .....do	33	77	123	197	321	827	227
Per cent of farm in—							
Tillable land	60.2	55.6	65.4	65.9	61.0	54.3	58.4
Crops	52.0	51.3	61.3	60.7	56.7	50.9	54.2
Idle crop land	5.9	2.5	2.2	1.6	2.6	1.1	1.9
Pasture	2.4	2.9	2.6	4.4	2.7	2.4	2.7
Woodland	30.7	36.3	25.1	23.7	31.3	36.5	32.6
Waste land	9.0	7.0	8.8	9.6	6.7	9.1	8.6
Value of real estate per acre	$34.00	$34.00	$39.00	$40.00	$37.00	$31.00	$34.00

While there is some variation among the groups in the proportion of land that is tillable, there is no direct relation between the size of farm and tillable area. The table shows that 58.4 per cent of all the farm area is tillable, and that two of the size-groups, that of from 51 to 100 acres and that of over 450 acres, fall below this proportion,

and that these two groups are those having the highest proportion of woodland.

The proportion of the total farm area utilized for crops is shown in figure 3, and the variation from this proportion for the several size-groups is shown in Table I. The smallest two and the largest of the groups each has about one-half of its farm area in crops, while two of the intermediate groups each has slightly over six-tenths of its farm area in crops. The size-groups vary somewhat in the proportion of farm area utilized for crops, but this variation is irregular and without apparent significance.

With the exception of the smallest size-group of farms, there is a remarkable uniformity in the proportion of tillable land utilized for crops. Beginning with the smallest, this proportion, expressed in percentage of the tillable area, is 86, 92, 94, 92, 93, and 94, with an average of 93 for all farms. This shows that practically all the land immediately available is being used for crops. The small additional acreage that might possibly be used for crops at the present time is the area lying idle and that utilized as pasture land, in all less than 5 per cent of the total farm area. Thus unless more land is cleared, it is impossible to increase materially the present crop acreage.

The tillable land lying idle usually consists of fields badly run down in productiveness. In a few instances land was idle because the cropper or renter had moved in the late spring, leaving the owner unable to obtain additional labor to farm the area relinquished. On the average 1.9 per cent or 8 acres of the farm area was idle crop land.

The percentage of farm area devoted to pasture is very uniform throughout the several size-groups, averaging 2.7 per cent. This would naturally be expected, as practically the only pasture land necessary under the present type of farming in this section is that for work stock and other live stock to furnish supplies for the home and for hired labor.

Woodland constitutes 32.6 per cent of the land area on these farms. The more common trees are long-leaf pine, oak, beech, maple, dogwood, and elm, of which long-leaf pine is the most valuable for lumber. The land area occupied by forests is mostly along the streams and in the low swampy areas.

The waste land, which comprises all the area taken up by buildings, roads, streams, and other nonproductive ways, is fairly uniform in all size-groups, varying from 6.7 to 9.6 per cent, with an average of 8.6 per cent for all farms.

There is a variation in the value of real estate per acre in the several size-groups, without relation to the size of farm. That it is affected primarily by the percentage of farm land in crops is evidenced by the fact that the highest real-estate values occur in the

groups ranking high in percentage of crop area. The lack of a correlation between size of farm and value of real estate per acre is perhaps due to social conditions more than to any other one factor.

In other tables it is shown that only the large farms can support an overseer or manager, and that on these large farms the operator's time is almost entirely taken up in the supervising of the business. The operator of the large farm can therefore, if need be, live at a distance from his farm lands, choosing a community where his family can have the best advantages. Usually the small farmer is not able to do this and is often compelled to live under very undesirable conditions. The location of many of these small farms is such that they will not sell for more per acre than large plantation land. The average value of real estate on the 268 farms was $34 per acre.

FARM TENURE.

In this study, which covers the data received from 534 farm operators, there were found 299 farmers owning a part or the entire farm operated; 268 of these farms were owned by white and 31 by colored farmers; the other 235 farms were operated by tenants, of which 49 were white and 186 colored.

The owner-farms were operated under three distinct forms of tenure, namely, that of "straight owner," or those who have the entire supervision of all their farming land; "owner renting additional," or those who not only operate their own land but also rent additional land and operate this along with their own farm as one unit; and "owner with part rented out." The latter usually include the larger farms, the owners of which in order to shift a share of the responsibility and to experience less risk, rent out a part of their farms to tenants, who furnish the working capital, perform all the labor, and give the owners a fixed amount of lint cotton for the use of the land. It is on farms held under this last-mentioned tenure that many of the tenants included in this study, especially the colored tenants, were found. The farms operated by tenants are all comparatively small, but the farms operated by owners comprise, in many cases, several thousand acres.

The economic and social conditions of the South are of a very different nature from those of the northern States, and the fact that these conditions are changing from time to time makes necessary readjustments of the relations of races. In 1860 the negroes represented 52 per cent of the total population of the county, in 1880 they represented 66 per cent, and in 1910, 73 per cent. This condition is attributable not only to natural increase, but to an increased demand for negro labor in this fertile section over that of less productive

regions. Separate schools and churches have to be built for each race, and thus farms are sometimes located a long distance from community centers. Under the type of farming followed at present in this region the two races are not separated into distinct communities, since the large amount of labor employed in operating these farms compels many workmen to live on each farm.

The white farmers, as far as possible, aim to live in town or to build in communities with their school or church near by. Thus, from their standpoint, the small farm located at a distance from these rural communities or from towns, partly or entirely surrounded by large plantations, is undesirable. Thus the problem of social relations has a vital effect on the organization of the farm community as a whole.

Naturally the underlying and most significant factor in bringing about the social and economic changes of the reconstruction period was the doing away with the system of labor in vogue before the war. Large areas that had formerly been farmed on the plantation system now became difficult to operate as farm units, and thus various systems of handling labor and of farm tenure came into vogue. The negroes were free to work as day laborers, or, where they owned or could borrow a little capital, they could become either tenants or small landowners.

In order to operate the owned farms under the changed conditions that have prevailed since the Civil War three distinct methods of employing labor have been inaugurated, namely, as wage hands, as share croppers, and as tenants.

The hiring of wage hands for the operation of the largest of these farms is a serious task, and it is the exceptional rather than the average man who is found operating a large farm with wage hands only. It is found to be about as profitable and less hazardous to engage not only wage hands but also share croppers and tenants in operating some of the larger farms. The scarcity of efficient labor willing to work for wages is the controlling factor in this regard.

Under the wage-hand system the laborers usually live on the farm and receive a specified cash wage. Rations may or may not be furnished.

The share cropper usually receives one-half of the crops for his labor and pays one-half of the fertilizer and ginning expenses, while the operator furnishes all the capital, pays all expenses other than those paid by the cropper, and has full supervision of the business. Because the share cropper does not furnish anything but labor he bears a close relation to the wage hand, the only difference being that he is paid a share of the crops for his services instead of cash wages.

In this study the croppers' share of crops, less the expense paid by them, has been used as a labor expense. The operator stands so much risk under this system that he is frequently subject to heavy loss unless he exercises close supervision. This share-cropper system is much more satisfactory to the negro than the wage system, not only because it gives him self-interest but because it also gives opportunity for the employment of his entire family. The more energtic and determined of these share croppers are soon able, by saving their money, to purchase a mule and machinery and become tenants.

In case of the tenant system the tenant furnishes all the working capital, and the landlord exercises very little supervision. His only concern is that the tenant raise enough cotton to pay the rent. This system of renting out a part of the farm and giving the tenant full control of its operation often does not work to the best welfare of the tenant. Many of these men will work regularly and efficiently only when directly under the supervision and control of the farm operator. Unless the tenant is proficient and uses good methods of management both in raising crops and in supervising labor, he is soon forced out of business and then necessarily has to start again as a wage hand and work up to the tenant stage. Where they realize and grasp the vast opportunities awaiting them these farmers are soon able to get enough money together to be fairly independent, but only a small percentage of them have the ability to operate farms upon their own responsibility and make a real success at the business.

Included in this study were 17 farms or plantations which were operated by managers hired to assume entire management and direction of the farm operations, just as the owner would. Eleven of these farms were in the white-owner, three in the white-owner-additional, and three in the white-owner-with-part-rented-out class. One of these manager farms had 135½ acres of crops, four had from 251 to 450 acres of crops, and the rest had over 450 acres in crops. When the salary of the manager is carried as operator's labor these farms are entirely comparable with other farms of the same tenure and size and have been included with them in all tables and discussions which follow.

In this area both white and colored operators are found under each form of tenure, but they have been shown separately in the tables and so treated in the discussion throughout this bulletin.

TENURE AND SIZE OF FARM.

Of the total number of farms included in this study 317 were operated by white and 217 by colored farmers. Out of the 317 white farmers 50 per cent were straight owners, 12 per cent owners renting additional land, 22 per cent owners renting out a part of their land,

and 16 per cent tenants. Of the colored farmers 86 per cent were tenants, 6 per cent owners, 5 per cent owners renting additional land, and 3 per cent owners renting out a part of their farming land. (See Table II.)

One-sixth of the farms operated by white owners contained less than 50 acres of tilled land, one-half of them between 51 and 150 acres, and about one-third over 150 acres. About 1 out of every 15 of these farms contained over 450 acres of tilled land.

There were 38 farms operated by white owners additional, and 21, or more than one-half of them, had not over 100 acres of crops. However, about one-fifth of them had over 450 acres of crops, or a considerably higher proportion than of the owners.

The white-owner farms with part of the land rented out were the largest farms found in this area. Only about one-fifth of these farms have less than 100 acres of crops, nearly half of them over 250 acres, and about one-fourth over 450 acres.

Two-thirds of the white tenants had less than 100 acres of crops and only about one-tenth of them had over 150 acres. The largest farm of this tenure contained 323 acres of crops.

TABLE II.—*Relation of tenure to size of farm (534 farms, Sumter County, Ga.).*

Tenure.	Number of farms under each specified area group.						Total.
	50 acres and less.	51 to 100 acres.	101 to 150 acres.	151 to 250 acres.	251 to 450 acres.	Over 450 acres.	
White:							
Owners	25	41	40	31	12	11	160
Owners, additional	6	15	4	3	3	7	38
Owners, with part rented out	5	8	12	13	15	17	70
Tenants	17	17	10	3	2	.....	49
Colored:							
Owners	1	7	3	1	.....	.....	12
Owners, additional	2	6	2	1	.....	.....	11
Owners, with part rented out	.....	.....	1	3	3	1	8
Tenants	96	68	18	4	.....	.....	186

There were but 12 colored-owner farms, and only 1 of these had over 150 tilled acres. These are comparatively small farms, two-thirds of them having less than 100 acres of crops.

The 11 farms of the colored-owners-additional class were distributed as to size practically the same as those of the colored owners. All the farms operated by colored owners with part of their land rented out had more than 100 acres of tilled land and one-half had over 250 acres

The colored tenants operate smaller farms than those of any other tenure. Ninety-six, or more than one-half of them, had less than 50 acres of tilled land. Eighty-eight per cent of these tenants farmed less than 100 acres and only 4 farms were found with over 150 acres of tilled land.

RELATION OF TENURE TO DISTRIBUTION OF INVESTMENT.

In Table III is shown the distribution of the farm investment on farms operated under different forms of tenure. Land, buildings, live stock, machinery, feed and supplies, and cash represent the capital invested in the farming business.

The investment in land constitutes the greater part of the farm capital. The second item of investment of importance is the buildings. On the owner farms the house occupied by the operator is ordinarily a neat, well-built structure, but the tenants' houses are usually small and in many cases cheaply constructed and not kept in good repair. The cotton system of farming necessitates the support of a great amount of labor by each farm, making the investment in tenant houses a considerable item. The other farm buildings are of comparatively cheap construction and represent only a small share of the total investment. Outside of the owners renting additional land, the investment in land and buildings constitutes over 80 per cent of the total farm capital.

The item of investment third in importance in this area is that of work stock, which consists mostly of mules. This item's percentage of the total capital shows marked uniformity on both owner and tenant farms. The live-stock enterprise in this area, outside of the horses and mules necessary for farm work, is a very small item. The investment in other live stock represents the value of cows, hogs, and poultry, and is less than 2 per cent of the farm investment in all but one class of tenure. With the exception of three or four farms practically all the products from these three classes of live stock are used on the farm.

The investment in machinery represents only a small portion of total capital, since comparatively few expensive labor-saving machines are used. A large percentage of the farms use one-horse machinery in nearly all farm operations, which tends to bring the machinery investment to the minimum per farm. The percentage of investment in machinery runs more evenly on the white than on the colored operator farms. Undoubtedly the large factor other than that of type in limiting the use of labor-saving machinery here is the fact that it can not compete with hand labor at the present cost in this region.[1]

[1] U. S. Dept. of Agr. Bulletin 338, Machinery Costs of Farm Operations.

TABLE III—*Relation of tenure to distribution of investment (534 farms, Sumter County, Ga.).*

Distribution of investment.	White.				Colored.			
	Owners.	Owners, additional.[a]	Owners, part rented out.[b]	Tenants (farm basis).[c]	Owners.	Owners, additional.[a]	Owners, part rented out.[b]	Tenants (farm basis).[c]
Number of farms	160	38	70	49	12	11	8	186
Total capital per farm	$13,773	$10,521	$26,883	$5,685	$5,984	$3,043	$15,998	$3,210
Per cent of total investment in:								
Land	65.1	53.7	71.6	68.8	72.4	63.3	75.0	77.0
Houses	6.8	6.9	4.5	7.8	5.8	3.6	5.9	.....
Tenant houses	4.8	7.3	5.8	4.0	3.9	1.2	3.8	5.7
Other buildings	4.3	5.1	4.3	3.3	2.7	1.9	5.9	2.0
Total land and buildings	81.0	73.0	86.2	[d] 83.9	84.8	70.0	90.6	[d] 84.7
Work stock	7.3	10.1	5.5	7.4	6.8	14.4	5.3	7.4
Other live stock	1.3	1.3	.7	1.6	1.3	3.1	.5	1.4
Machinery	2.8	2.8	2.0	2.4	2.2	3.4	1.3	2.0
Feed and supplies	5.0	6.7	3.6	4.1	4.2	6.8	2.0	3.9
Cash	2.6	6.1	2.0	.6	.7	2.3	.3	.4

[a] Does not include investment in rented land.
[b] Includes the investment in land rented out.
[c] Landlord's and tenant's investment combined.
[d] Landlord's share of investment.

The investment in feed and supplies represents the inventory value of the feed and other supplies that were on hand at the beginning of the farm year. The item which makes the feed supplies investment seemingly of such importance is that for cotton seed, which some of the farmers each year hold over in abundance and use during the late spring for feed, seed, and fertilizing purposes.

Where farmers had cash of their own to run their farms during the year this item was carried as a part of the farm investment. Many of these farmers borrow all or a part of the money for the payment of their yearly expenses. The uneven distribution of the portion of the investment represented by this item is mostly explained by the fact that more money was borrowed for the payment of yearly operating expenses under some forms of tenure than under others. A much higher percentage of the white tenants and of all colored farmers borrow money for current operating expenses.

The farms operated by colored farmers show a higher percentage of total investment in land and lower in buildings than do the farms of white operators of the same tenure group.

The owners with additional rented land had a lower percentage of the total investment in land and a higher percentage in work stock than the men operating straight owner propositions. This additional investment in work stock is necessary in order to operate the extra land rented. In case of the owner with a part of his land rented out the proposition is exactly the reverse. His additional investment in land not operated by labor or equipment furnished by him will reduce his percentage investment in work stock.

RELATION OF TENURE TO PROFITS.

The "farm income" is the difference between receipts and expenses; in other words, it represents the combined earnings of the capital and the operator's labor. The "labor income" represents the amount the farmer has left for his year's labor after deducting from the farm income 5 per cent interest on the capital invested. In addition to the farm income, each of these farmers has the benefit of house rent, wood for fuel, and what the farm furnishes toward the family living.

A serious defect in the system of farming followed by many farmers in this region is lack of attention to the production of home supplies. Failure to grow adequate forage and garden produce is, in general, a serious impediment to the advancement of an agricultural region. The long growing season gives these farmers almost unlimited opportunity for growing these products. The prosperity of the average farmer, especially the farmer with small means, depends in great measure upon the interest he takes in growing animal products, grains, fruit, truck, and garden vegetables for family use.[1]

In Table IV is given a comparison of the average tilled area, capital, receipts, expenses, farm income, and labor income for the different tenure groups.[2]

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[1] In an investigation made by the Office of Farm Management as to what the farm contributes directly toward the family living in Troup and Meriwether Counties, Ga. (U. S. Dept. of Agriculture, Farmers' Bulletin 635), the reports from 50 farms indicated that the average annual value of food, fuel, and house rent furnished by the home farm was $519.63 per family. Of this amount, $376.03 was for food products, such as meat, eggs, dairy products, grains, fruit, and vegetables. The value of these food products furnished by the farm represented 78.3 per cent of the total food expenses of these families. The annual value of fuel furnished by the farm was $51.60, and house rent amounted to $92. In carrying this study a little farther we find that the annual value of food, fuel, and house rent furnished by these farms was $96.25 per person. Of this amount, $69.25 was for food, $9.56 for fuel, and $17.04 for rent. While there is a wide variation in the standard of living among farmers in Sumter County, the above figures are of interest as indicating the value of the products the farm will afford without much cash expenditure in production. It can readily be seen from these figures that if it were not for those products contributed by the farm without much actual cash expenditure a great many farmers would not realize any savings from their labor income. In order to make the farmer's income comparable to the city man's wages the value of the above items should be added to the labor income.

[2] The interest rate here used is uniform with that used in all of the publications of the Office of Farm Management relating to farm-management surveys. However, after a study of the mortgage rates of interest paid in this area they are found to be 7.7 per cent upon farms of 150 or less tilled acres and 6.6 per cent upon farms of over 150 tilled acres. The average for all farms is 6.8 per cent. It may therefore be of interest in connection with this study to show what the labor income of the farms operated under different tenures would be if a rate of 7 per cent interest on the investment were deducted from the farm income instead of 5 per cent. Based upon a 7 per cent rate, the labor incomes are as follows:

White operators.—Owners, $577; owners additional, $1,062; owners with part rented out, $555; tenants, $529. *Colored operators.*—Owners, $263; owners additional, $478; owners with part rented out, $175; tenants, $302.

TABLE IV.—*Area, capital, receipts, expenses, and income on farms of different tenures. Sumter County, Ga.*

	Number of farms.	Tilled area.	Capital.	Receipts.	Expenses.	Farm income.	Labor income.
		Acres.					
White:							
Owners	160	158	$13,773	$4,097	$2,555	$1,542	$853
Owners additional	38	168	10,521	4,594	2,796	1,798	1,272
Owners part rented out	70	394	26,883	6,400	3,963	2,437	1,093
Tenants	49	85	890	1,572	980	592	547
Colored:							
Owners	12	95	5,984	1,659	977	682	383
Owners additional	11	77	3,043	1,646	955	691	539
Owners part rented out	8	307	15,998	3,107	1,812	1,295	495
Tenants	186	59	491	902	566	336	312

The 160 farms operated by white owners, having an average of 158 acres of tilled land and with an investment of $13,773, returned an average farm income of $1,542. Deducting interest on investment the owners have left, on the average, $853 as labor income. Deducting from the farm income the value of the farmer's labor, these farms show a return of 8 per cent on investment.

There were 38 farms operated by white owners renting additional land. On the average these men operated 168 acres of tilled land, but owing to 30 per cent of the farm area being rented, the average investment of these men was lower than that of the 160 owners. The average investment on these farms was $10,521, with a farm income of $1,798 and a labor income of $1,272. These men realized 12.6 per cent upon capital invested.

The 70 farms operated by white owners renting a part of their farming land out were the largest farms found in this study. These farms averaged 394 tilled acres, of which 41 per cent was rented out. The investment averaged $26,883, labor income $1,093, and interest on investment 7 per cent.

Forty-nine of the farms were operated by white tenants. These farms averaged 85 acres of tilled land, and with an average of $890 capital they returned a farm income of $592 and a labor income of $547. Several white tenants were found in this area who owned small farms, but who, in order to do a larger business, had leased their own farms and were operating large rented farms.

It will be noted from Table IV that in all classes of tenure the farms operated by colored farmers are smaller than those operated by white farmers of the same tenure.

Thirty-one of the farms were owned by colored farmers. Of this number 12 were operated as owner farms, with an average size of 95 tilled acres; average investment was $5,984; farm income, $682; and labor income, $383. Eleven of the farms owned by colored farmers

were operated with additional land rented. These farms averaged 77 tilled acres, of which 26 per cent was rented additional. They had an average capital of $3,043, a farm income of $691, and a labor income of $539.

The remaining 8 farms owned by colored farmers were operated as owners renting out part of their land. These farms averaged 307 acres of tilled land, of which 45 per cent was rented out. The average capital invested was $15,998, which returned them a farm income of $1,295 and a labor income of $495.

The 186 colored tenants, as previously stated, were operators responsible for the entire operation of the farm. They farmed on the average 59 acres, and with $491 capital realized a farm income of $336 and a labor income of $312. It is doubtful whether, on the average, these men make any higher profits than the share croppers, as under the share-cropper system the profits of the land owner are dependent upon the quality of the crops grown by the cropper. The most desirable feature of the tenant system, from the standpoint of the tenant, is that in the main he is emancipated from the directing authority of the landlord and thus has more liberty than the share cropper to do as he likes.

THE FAMILY INCOME.

The family income is the amount of money available for the family living and the payment of interest on indebtedness after deducting cash expenses from total receipts. For the operators of small farms, and especially for most of the colored operators, this is the income of most concern to the family welfare.

The value of family labor per farm for the 268 white-owner farms was $43. This, when added to the farm income of $1,812, is of little concern to these farmers as a class. Indeed, many of these farms reported no family labor except that done by the operator.

Thirty-one of these farms, operated almost entirely by the farmer and his family, had on the average 36 acres of land devoted to crops, of which 16 acres were in cotton, 14 in corn, and the rest in other crops. Their average investment was $3,000, and all but 5 were free from mortgage. The families averaged 5 in number, with 2 under 16 years of age, and the value of family labor, besides that performed by the operator, averaged $220. With the aid of $28 worth of extra labor for picking cotton, these farmers realized an average family income of $551. This represents the amount of money available for the payment of living expenses, interest upon mortgage, and for savings. The largest families received the highest incomes. Three of these farms had 10 persons or more per family and made a family income of over $800 each.

An average of $55 worth of labor was performed by the families on the white-tenant farms. The average family income was $647. Twenty-one of the 49 white-tenant farms were operated by the tenant and his family. These farms averaged 38 tilled acres, of which 21 acres were in cotton, 13 in corn, and the rest in other crops. The average investment was $435. Six farms reported mortgages, averaging $100. The family labor was valued at $83, and with the aid of $37 extra labor they were enabled to make an average family income of $266 per farm. One-third of these families made less than $200 for the year. Only three made incomes as high as $400.

The average value of family labor on the 31 colored-owner farms was $198, while the average family income was $1,041. Ten of the colored-owner farms were operated almost entirely by the farm family. These averaged 69 tilled acres, with 41 acres in cotton, 20 in corn, and 8 in other crops. Investment averaged $3,500. Six farms out of the 10 were mortgaged. The family averaged 8, with 3 under 16 years of age, and the family labor was valued at $255. They hired $34 worth of additional labor. The family income was $853. Two of these families, each with 11 members, made over $1,000 each. Families averaging 3 or fewer made but little over $300.

The value of family labor per farm for the colored tenants was $168, and the average size of the family was 5. The family income on these farms was $504. In 140 out of the 186 tenant farms almost all the labor was performed by the negro family. These tenant farms averaged 47 tilled acres, with 30 acres in cotton, 13 acres in corn, and 4 acres in other crops. Average value of working capital was $366. One-half of these farmers reported mortgages to the amount of two-thirds of their capital. Families averaged 6, family labor $159, and family income $421. One-third of these family farms reported 8 persons or more per family and an average family income of $561.

Besides the income that these families are receiving, they have, as pointed out above, the meat and other animal products, fruits and vegetables, house rent, and fuel that are furnished by the farm. The value of these items that the farm furnish varies considerably, according to the standard of living each family maintains. From this study it is evident that this standard is much higher in some cases than in others. For example, the 31 white-owner families devoted an average of 20 acres to the growing of corn, small grains, potatoes, and other crops for farm and home use. One-half of these families raised and sold an average of $50 worth of such products over and above that needed for farm and home use. These farms reported the sale of such items as corn, oats, cowpea seed, peanuts, sweet potatoes, cane sirup, fruit, and garden products. Seven re-

ported the sale of meat above that needed for home use, 10 sold eggs, and 7 sold butter or other milk products. When we consider that these families have an abundance of these products for home use, besides house rent and fuel, the family income of $551 they receive means much more than that sum earned by a city day laborer means to his family.

The white tenants used 17 acres for the growing of crops for home and farm use. Of these family farms, over 60 per cent sold crops besides cotton, including corn, sweet potatoes, Irish potatoes, peanuts, sirup, oats, watermelons, and garden vegetables, but the sales amounted to only $27 per farm reporting.

The colored owners used an average of 28 acres in growing crops for farm and home use. Only two reported sales from crops other than cotton, and this sale was for sirup and amounted to only $5 in each case. Two families sold eggs to the amount of $5 each.

The colored tenants used 17 acres for growing corn and other crops for farm and home use, but the yields most of these men received were very low. Of the 140 colored tenant family farms, 50 reported sales from crops other than cotton, but on 20 of the farms returns from these sales were less than $10. The average was $31 per farm reporting, the sales being mostly of watermelons, sirup, and sweet potatoes, with an occasional sale of corn, cowpeas, and other miscellaneous crops. It was observed during this study that many of the tenants evinced no pride whatever in keeping the house and surroundings neat and attractive. Few had a well-kept garden. Twenty-one of these family farms did not raise pork for home use. Land is always available for truck gardens, and it would be an easy matter for these tenants to raise most of their food products if they had the inclination, but it often happens that this land is either devoted to cotton and corn or left idle. The family income of these tenants is indeed very good. Where a tenant and his family with this small amount of capital can make $421 for their year's work, besides house rent and fuel and farm products, they are doing exceedingly well. But the part of this income these men should be able to save will be determined largely by the advantage they take of the opportunity of raising home products for family use. As the case is now, many farmers do a regular business of selling these tenants meat, grain crops, vegetables, and fruit.

LANDLORDS' PROFITS.

The profits of the landlords in this region vary considerably from year to year. With but two exceptions, the landlords rented their farms in this region for a specified amount of the cotton, and the profits they received depended directly upon the price they received

for the cotton. Ordinarily the rent is on the basis of the number of mules necessary in operating the farm. The rent ranges from 2 to 3 bales per mule.

The landlords renting to white tenants had an average investment of $4,795 per tenant, and made a profit of 7.3 per cent. One landlord rented for cash and received 5 per cent upon his investment.

The average investment of the landlords renting to colored tenants was $2,719 per tenant, and they made a profit of 8.9 per cent. One of these farms was rented for cash and returned the landlord 4 per cent.

The profits that landlords realize on many of these farms are not comparable with the incomes of landlords in the Northern States. More or less supervision is given many of these tenants. The landlord in many cases gives security for tenants' credit or gives orders on stores for provisions and other supplies, settling with the tenants when the cotton is sold. Where no supervision is exercised by the landlord, the land worked by many of these tenants becomes more or less impoverished.

THE RELATION OF TENURE TO FARM LOANS AND INTEREST RATES.

It is an old and well-established custom in this region for farmers to borrow money for carrying on their business during the year. There are many ways of handling this loan, but the method quite generally used is that in which the farmer goes to the bank at the beginning of the year, places his order for the season's loan, and draws it out as needed. This yearly loan is considered entirely separate from the mortgage loan which some of them carry. The mortgage loan refers to real estate indebtedness or to debts carried over from previous years. In Table V is shown the average amount of yearly loan and interest rates paid on farms operated under different forms of tenure.

Out of the 268 white owners, 60 per cent reported borrowing money for carrying on their year's business. They borrowed on the average $940 each, at an average rate of 7 per cent. The men on farms of 150 or fewer tilled acres were paying 7.8 per cent, while the men on the larger farms paid 6.8 per cent. Undoubtedly the higher interest rates paid on the small farms were largely due to the small amounts borrowed. The men on the smaller farms only borrowed an average of $286 per year to meet their expenses, while the larger farmers borrowed $1,635. The small farmer evidently is just as safe, as only 33 per cent of them reported a farm mortgage, whereas 44 per cent of the larger farms were mortgaged. On the average the smaller farms had a mortgage of $1,488 and paid 7.7 per cent interest. The larger farmers borrowed an average of $8,623 and paid 6.6 per cent interest.

Of the white tenants, 84 per cent borrowed money for expenses. These men borrowed an average of $309 per year and paid 8.8 per cent interest. Over one-fourth (26 per cent) reported mortgages, averaging $353, with interest charges averaging 9.1 per cent. This mortgage represents 57 per cent of the total capital owned by these men. The amount these men borrow does not have so much influence upon the interest rate they pay as in case of the farm owners. The risk is much greater in making loans to men who own no real estate.

The yearly loan was practiced by 94 per cent of the colored owners. These men paid somewhat higher rates of interest than the white owners, but the white owners borrowed three times as much per farm as did the colored owners. Of the latter, those in the smaller-size group borrowed $206 each and paid 10.3 per cent, while on the larger farms they borrowed $596 each and paid interest at the rate of 9.4 per cent. Data regarding the farm mortgages of these colored owners were not complete enough to be included in this table. On the average for all the owner farms the interest rate is about 1 per cent cheaper on the larger farms than on the farms of the smaller-size group.

All but 6 of the colored tenants carried their yearly farm expenses on borrowed money. In many cases this money was either borrowed by the landlord and given out in small quantities to them or else he stood good for their loan. They borrowed an average of $153 apiece and paid interest at the rate of 10.6 per cent. Data were not complete regarding the number of these tenants carrying a mortgage on their working capital, but for those reporting, the average capital was $476, the mortgage $284, and the interest rate 10.5 per cent. Money loaned under these circumstances involves great risk, and consequently the interest rate is correspondingly high.

TABLE V.—*Relation of tenure to farm loans and interest rates (Sumter County, Ga.).*

Tenure.	Farms of 150 tilled acres or fewer in size.			Farms over 150 tilled acres in size.			All farms.		
	Per cent of farms reporting.	Amount of loan.	Interest rate.	Per cent of farms reporting.	Amount of loan.	Interest rate.	Per cent of farms reporting.	Amount of loan.	Interest rate.
268 white-owner farms:			*Per ct.*			*Per ct.*			*Per ct.*
Yearly loan	53	$286	7.8	70	$1,635	6.8	60	$940	7
Mortgage loan	33	1,488	7.7	44	8,623	6.6	38	4,949	6.8
49 white tenants:									
Yearly loan	82	228	8.9	100	890	8.7	84	309	8.8
Mortgage loan	27	265	8.8	(a)	.....	.....	26	353	9.1
31 colored owners:									
Yearly loan	96	206	10.3	89	596	9.4	94	313	9.8
186 colored tenants:									
Yearly loan	97	145	10.6	75	633	10.6	97	153	10.6

a Only one farm reporting.

THE RELATION OF TENURE AND CAPITAL TO PROFITS.

In Table VI the white owners, owners additional, and tenants are classified into groups based upon the amount of capital invested and showing the number of acres tilled and labor income in each group. It is possible, with the present price of labor, to grow cotton profitably with a very inexpensive equipment, and hence one may begin cotton farming with a small amount of capital. This table shows clearly that the man desiring to farm with a small amount of capital has the best opportunity as a tenant. The second best proposition is that of owning a farm and renting additional land for raising crops. The straight owner proposition is third. The reason the owner who rents additional land is making somewhat higher profits than the straight owner with the same capital is that he is able thereby to operate a greater acreage with a given amount of capital. Unless a farmer has a large amount of capital to invest, owning land and renting out a part of it is not desirable.

TABLE VI.—*The relation of tenure and capital to labor income on 247 farms operated by white owners, owners additional, and tenants, Sumter County, Ga.*

Operator's capital.	Average number of tilled acres and average labor income in each specified tenure.					
	Owners (160 farms).		Owners additional (38 farms).		Tenants (49 farms).	
	Tilled area.	Labor income.	Tilled area.	Labor income.	Tilled area.	Labor income.
$500 and less					39	170
$501 to $1,000					70	460
$1,001 to $2,000	25	139	40	250	137	928
$2,001 to $3,000	45	122	67	529	259	1,509
$3,001 to $5,000	62	329	93	717	323	2,725
$5,001 to $9,000	94	515	132	987		
$9,001 to $14,000	139	736	264	964		
$14,001 to $25,000	177	1,132	303	3,240		
Over $25,000	440	2,293	725	3,948		

The tenant farmer with about $1,000 capital has the use of 70 acres of tilled land, and, as compared with the hired man's wages in this region, makes a very good labor income. In order to operate this much land as an owner renting additional land, which the data shows is the second best proposition, he would need three times as much capital. To operate the same amount of land as a straight owner he would require five times as much capital.

The tenant operating a farm business representing an investment of between $1,000 and $2,000 has the use of considerably over 100 acres of tilled land, while in order to operate this much land as an owner renting additional land he would require over $5,000 capital, and as a straight owner over $9,000. The largest farm operated by a white tenant contained 323 tilled acres. With $4,820 capital this man

received a labor income of $2,725. In order to have operated a farm of this size as an owner additional he would have needed $21,000 capital and as a straight owner over $25,000.[1]

The relation of capital to profit indicated in Table VI holds true in other regions where studies of this nature have been carried on. The men with the most capital are, as a rule, making the highest labor incomes. This, however, does not mean that all the men with a large amount of capital are making large labor incomes. More capital gives additional chances for a larger volume of business, but unless the quality and efficiency of this business is up to the normal, the less business a man does the less he is liable to lose.

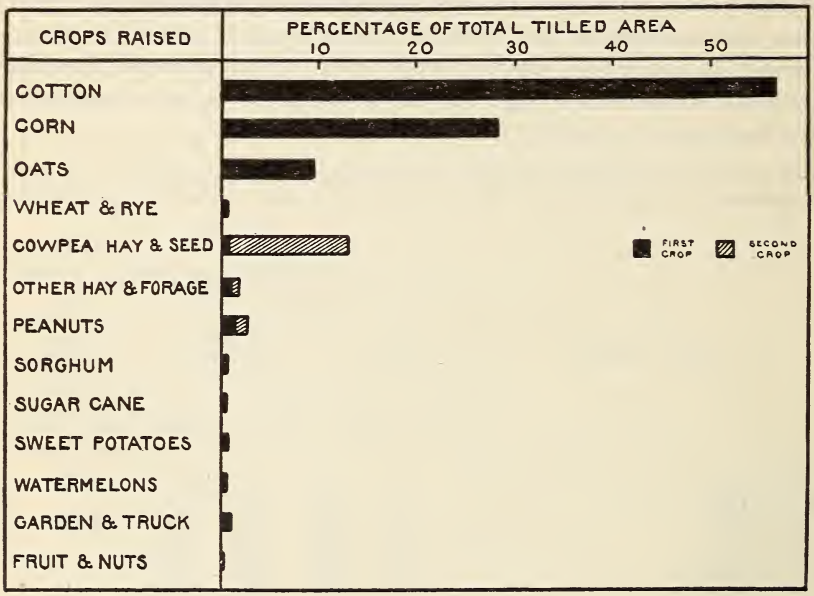

FIG. 4.—Proportion of tilled area devoted to different crops (160 white-owner farms, Sumter County, Ga.).

RELATION OF TENURE TO DISTRIBUTION OF CROP AREA.

The long growing season, together with other favorable conditions, enables the farmers of this area to grow a large variety of crops and in many cases to use the land for more than one crop during the year. The length of the growing season for the year 1913 was 207 days. The crops are raised under the wage-hand and share-cropper systems of handling labor. Under the wage-hand system all the labor is per-

[1] The tenant is at a disadvantage if farming in a region where the land is increasing in value. If the land is increasing or likely to increase in value a tenant would be better off to invest what capital he is able to secure in land, even though the size of his business and profits are lower than as a tenant. In computing the labor income the increase in land value is not taken into consideration.

formed by wage hands. Under the share-cropper system a share of the crops is given for the labor, while the operator furnishes the land, equipment, work stock, pays part of the expenses, and supervises the work.

Table VII shows for each class of tenure the percentage of crop land devoted to each crop when grown as a first crop and as a second crop. The accompanying chart (fig. 4) presents graphically the percentage distribution of crop area on the 160 white-owner farms. Under the present organization of these farms cotton is the crop of far greatest importance. It is well adapted to this region and does well on both clay and sandy soils. It occupies 59 per cent of the crop area of the region. This crop is handled by both wage and share croppers, but the proportion of the cotton area operated under these two systems varies under the different classes of tenure. In case of the colored owners and colored tenants a very small proportion of the area is farmed under the share-cropper system. The three classes of white owners have about 57 per cent of their crop area devoted to cotton, while the white tenants have over 63 per cent. Both colored owners and colored tenants have a higher percentage of their crop area in cotton than do the white operators.

TABLE VII.—*Relation of tenure to distribution of crop area (534 farms, Sumter County, Ga.).*

Crops.	White operators.				Colored operators.			
	Owners.	Owners, additional.	Owners, part rented out.	Tenants.	Owners.	Owners, additional.	Owners, part rented out.	Tenants.
Number of farms	160	38	70	49	12	11	8	186
Percentage of tilled area in—								
Wage cotton	21.7	22.4	23.8	40.5	52.0	46.0	29.0	58.2
Share-cropper cotton	34.9	35.0	33.1	22.8	7.8	17.5	33.1	7.3
Total cotton	56.6	57.4	56.9	63.3	59.8	63.5	62.1	65.5
Wage corn	15	16.7	15.1	20.4	26.1	21.4	13.7	24.5
Share cropper corn	13.5	13.5	11.3	5.9	4.3	4.8	17.3	2.4
Total corn	28.5	30.2	26.4	26.3	30.4	26.2	31.0	26.9
Oats for grain	9.4	7.5	10.2	5.4	4.0	4.2	2.2	2.7
Wheat and rye	.4	.3	.5	.1	.3	.....	.....	(a)
Cowpea hay and seed	.6	.4	2.0	.3	(a)	1.7	.....	.6
Second crop	12.3	10.5	7.7	8.3	12.4	9.7	11.4	5.7
Other hay and forage	1.1	1.2	1.2	1.6	2.9	.9	3.2	2.0
Second crop	.7	1.0	.9	1.5	2.4	.....	.7	.8
Peanuts	1.3	1.1	.9	1.3	.7	1.1	.3	.4
Second crop	1.3	1.2	.4	.5	1.0	.....	.4	.....
Sorghum	.3	.3	.3	.2	.1	.1	.1	.2
Sugar cane	.3	.3	.2	.2	.4	.7	.2	.4
Sweet potatoes	.4	.4	.3	.5	.4	.6	.6	.5
Watermelons	.3	.1	.1	.1	.1	.4	.1	.3
Garden, truck, etc	.7	.7	1.0	.7	.9	.6	.3	.5
Fruits and nuts	.1	.1	(a)	(a)	.....	.....	.....	.....
Total per cent of crop area used for second crop	14.3	12.7	9.0	10.3	15.8	9.7	12.5	6.5

(a) Less than one-tenth of 1 per cent.

Corn, the crop second in importance in this region, is grown by practically every farmer and occupies over one-fourth of the tilled area. Corn and fodder constitute the principal feed for live stock. Corn is also quite generally used as a family food. The area devoted to this crop in the different classes of tenure ranges from 26.3 to 31 per cent of the total tilled area. As a rule the owners are devoting more attention to raising corn than are the tenants.

The small-grain crops are third in importance in utilizing the land for first crops. Oats are the principal small-grain crop grown in this region, and are also of much importance as a hay and pasture crop. They are well adapted to a wide range of soils and can be harvested early enough in the summer to utilize the land for other crops which may be harvested the same season. Much of the oats harvested as a grain crop is fed in the sheaf. As a grain crop oats occupy from 7 to 10 per cent of the crop area on white-owner farms, 5 per cent upon the white-tenant farms, and 4 per cent or less upon the farms with colored operators. Wheat is grown on a small number of farms in this area and returns only fair yields. While only a few farms grow rye as a grain crop, it is used more extensively as a cover and green-manuring crop. In regions north of this county these two crops occupy a larger acreage and give much higher yields.

Cowpeas occupy an important place in the agriculture of this region. As this plant is of tropical origin, it grows well during hot weather, completing its growth in from 3 to 4 months and thereby making it possible to grow it at times when the land would otherwise be idle. Cowpeas are not only valuable as a hay and seed crop, but have a high soil-fertility value as well. The area devoted to this crop for hay and seed is shown in Table VII. There were, in addition, certain farms where cowpeas were sown and plowed under during the year for their fertilizing value, but complete records of the acreage treated in this manner were not secured. The cowpea is the crop of greatest importance in the utilization of land for the second time during the year. It occupies only a small percentage of the first-crop area, but as a second crop it utilizes as high as 12 per cent of the tilled area on some tenures. The usual practice in this region is to follow grain crops, usually oats, with cowpeas for hay. On corn ground cowpeas are usually sown during the last cultivation. When this can be done the cost, above that for seed, is very small. After harvesting the cowpea seed the vines are left on the ground for pasture or to be plowed under.

There are a number of other crops used for hay, but the areas of these are of such minor importance that they are grouped together as "other hay." Oats occupy the most important place in this respect, while rye, peanuts, sorghum, vetch, Bermuda grass, meadow hay, beggarweed, or crab grass were reported in small scattering areas.

The portion of the crop area devoted to these crops is fairly evenly divided between first and second crop land.

Few farmers in this region grow peanuts as a money crop. Only enough seed is harvested for farm use; the rest of the crop is used as feed for hogs, the hogs doing the harvesting. Peanuts give very satisfactory returns as a feed and can be grown as a second crop during the year. Less than 2 per cent of the crop area is devoted to peanuts.

Saccharine or sweet sorghum is used mainly as a forage crop. It returns very satisfactory yields and a number of the farmers devote small areas to it.

Sugar cane, sweet potatoes, and watermelons are raised mainly for farm and home use and occupy about 1 per cent of the crop area.

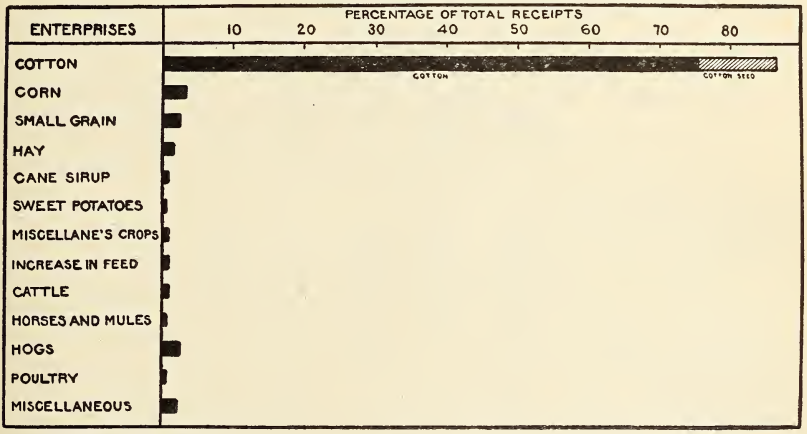

FIG. 5.—Proportion of farm receipts from different sources (160 white-owner farms, Sumter County, Ga.).

Many of these farms have an area devoted to growing garden vegetables and truck crops for use in the home and supplying hired labor. The large amount of labor maintained on these farms makes the growing of these crops quite essential.

The owners devote a larger portion of the crop area to raising farm feeds and home supplies than do the tenants.

THE RELATION OF TENURE TO DISTRIBUTION OF FARM RECEIPTS.

In Table VIII is shown the distribution of receipts on farms operated under the different classes of tenure. Figure 5 represents graphically the percentage of distribution of farm receipts on the white-owner farms.

This table brings out clearly the importance of the cotton enterprise in this region. On the farms worked by white operators the receipts from cotton and seed alone range from 86.4 to 89.8 per cent of the total for each tenure. In case of the farms worked by colored oper-

ators, even a larger amount of the farm receipts comes from the sale of cotton, the range averaging from 87.5 to 94.2 per cent of the total receipts.

Practically all the corn crop is required for feed and family use. A large portion of it is used for feeding work stock and the large number of hogs kept.

While Table VII shows that the colored operators devote about the same proportion of area to corn as do the white operators, the former received much lower yields and consequently were not able to sell nearly as large a portion of the crop. For the entire area the receipts from corn are less than 3 per cent of the total farm receipts.

TABLE VIII.—*The relation of tenure to distribution of farm receipts, Sumter County, Ga.*

Source of income.	White operators.				Colored operators.			
	Owners (160 farms).	Owners, additional (28 farms)[c].	Owners, part rented out (70 farms)[d].	Tenant (farm basis) (49 farms)[e].	Owners (12 farms).	Owners, additional (11 farms)[c].	Owners, part rented out (8 farms)[d].	Tenant (farm basis) (186 farms)[e].
Percentage of income from—								
Cotton	75.4	75.8	79.3	76.8	81.7	78.4	81.0	82.8
Cotton seed	11.0	11.0	10.5	12.1	9.4	9.1	7.3	11.4
Total cotton	86.4	86.8	89.8	88.9	91.1	87.5	88.3	94.2
Corn	3.4	3.3	2.1	2.2	1.1	.5	3.8	.6
Grain crops	1.2	1.1	.4	.6	.....	.....	.....	.....
Cow pea hay	.7	.6	.2	.5	(a)	.2	.....	(a)
Other hay and forage	(a)	.....	(a)	.....	.....	.....	.....	.....
Cane sirup	.6	.4	.4	.4	.2	.9	.2	.2
Sweet potatoes	.3	.4	.1	.3	.1	.3	.1	.3
Fruit and nuts	(a)	.1	.1	(a)	.....	.....	.....	(a)
Miscellaneous crops	.6	.1	(a)	.2	.3	.2	.5	.2
Total crops	93.2	92.8	93.1	93.1	92.8	89.6	92.9	95.5
Increase in feed and supplies	.9	1.9	2.2	3.3	3.9	4.6	.6	2.4
Cattle[b]	.8	.4	.6	.6	.7	1.7	.4	.5
Horses and mules	.2	.2	(a)	.1	.....	.2	.....	.....
Hogs	2.3	1.3	.9	.6	(a)	(a)	.2	(a)
Poultry	.5	.2	.2	.5	.3	.3	.2	.3
Bees	(a)	(a)	.....	(a)	(a)	.....	.....	(a)
Total stock	3.8	2.1	1.7	1.8	1.0	2.2	.8	.8
Miscellaneous sources	2.1	3.2	3.0	1.8	2.3	3.6	5.7	1.3

[a] Less than one-tenth of 1 per cent.
[b] Two farms reported goats.
[c] Does not include the landlord's receipt on additional land rented.
[d] Includes owner's receipts on part of farm rented out.
[e] Landlord's and tenant's receipts combined.

The other crop sales are of only very minor importance and consist of grain, hay, sirup, sweet potatoes, watermelons, and other crops, including some fruit and a few garden products. The sale from these items is relatively higher upon the white-operator than upon the colored-operator farms.

The item of feed and supplies is only a small receipt and represents the increase in value of feeds and other supplies on hand at the end of the year above that on hand at the beginning of the year.

The receipt from live stock and live-stock products in this area is a very small item. Very little attention is given the live-stock industry. Aside from the mules, usually only enough cows, hogs, and poultry are kept for farm use. With the present yields it requires practically all the crop land above that devoted to cotton for supplying the needs of farm and family in carrying on the business.

Hogs are the most important live-stock enterprise. Besides supplying farm needs, they return more than any other class of stock. So many laborers are required for the operation of these farms that a large number of hogs are slaughtered each year for supplying them.

The other live-stock receipts are from the sale of dairy products, cattle, horses, mules, colts, and poultry, and on most of the tenures constitute about 1 per cent of the total farm receipts.

The receipts from miscellaneous sources return these farms a small income each year. These miscellaneous receipts include such items as returns for labor done outside the farm, for wood sold, and for cotton ginning, and rent of land or buildings.

THE RELATION OF TENURE TO DISTRIBUTION OF FARM EXPENSES.

In Table IX is given the percentage distribution of the more important items of expense. Almost all the labor in this region is performed by the colored man and his family. The wage hand is paid from $10 to $18 per month and rations. It is the general custom to issue the rations to the laborers by the week or month. Some of these rations are purchased and the operator usually attends to the buying of these provisions and issues them to the hands. Rations are furnished wage hands and advanced to croppers. Some of the larger farms maintain commissaries or stores, which give the owner the advantage of buying by wholesale. Labor is generally employed by the year in order to have it at times when most needed. In many cases it is necessary to advance wages. Practically all labor is contracted for during the latter part of December or at the first of the year.

The first four items of expense shown in Table IX include the entire expenditure for labor other than that done by the operator, namely, expenses for wage hands, for extra labor for "chopping" and picking cotton, cropper's share of crops, and the value of the labor performed by the operator's family. In case of the white farmers, over one-half of the labor expense is paid to share croppers and their families. On the colored farms a much higher percentage of the labor is performed by members of the family. The variation in the expense for labor is from 41 per cent to 56 per cent of the total farm expenditures in the various tenure classes. The expense for repairs of machinery and buildings is greater upon the white operators' farms, but the expense for fence repairs and terraces is

about the same in all classes of tenure. The time and expense put upon fences or terraces represents in all cases only what was necessary. The fundamental reason for the difference in the upkeep of buildings, and especially the dwellings, is that the occupant of the tenant house is not the owner and neither the landlord nor the tenant has the interest in the property that the owner occupant has.

TABLE IX.—*Relation of tenure to distribution of farm expenses (534 farms, Sumter County, Ga.).*

Items of expense.	White operators.				Colored operators.			
	Owners (160 farms).	Owners additional (38 farms).[b]	Owners part rented out (70 farms).[c]	Tenants (farm basis) (49 farms).[d]	Owners (12 farms).	Owners additional (11 farms).[b]	Owners part rented out (8 farms).[c]	Tenants (farm basis) (186 farms).[d]
Percentage of total expense represented by—								
Wage hands	12.4	10.4	16.8	10.2	4.9	5.4	9.9	4.4
Cotton picking and chopping (extra labor)	6.9	6.8	6.7	8.6	9.6	4.0	6.5	4.8
Share croppers	34.4	29.3	29.0	24.9	9.3	17.7	26.8	8.2
Family labor	2.0	2.3	.7	5.5	28.3	14.3	9.0	28.6
Total labor	55.7	48.8	53.2	49.2	52.1	41.4	52.2	46.0
Repairs—								
Machinery	1.4	1.7	1.7	.9	.8	.7	1.9	.8
Buildings	2.4	2.8	4.0	1.4	.4	.7	3.4	.7
Fences	.5	.3	.4	.3	.5	.3	.2	.5
Terracing	.3	.1	.2	.2	.1	.3	.....	.2
Feed, hay, etc	.5	.6	.9	1.2	1.0	.6	.8	1.7
Feed, grain, etc	1.8	1.5	2.1	3.9	4.6	2.5	2.2	4.6
Horseshoeing	.2	.2	.2	.2	.2	.2	.3	.2
Breeding fees and veterinary	.2	.1	.2	.3	.....	.1	.2	.1
Seeds and plants	.9	.9	1.4	1.5	1.0	.5	1.2	1.1
Fertilizer—								
Croppers	13.2	12.7	11.5	9.1	3.9	9.4	12.2	3.5
Wage land	13.9	12.1	12.5	19.4	22.6	17.7	9.5	26.2
Thrashing and twine	.3	.3	.1	.2	.....	.....	.....	(a)
Ginning, bags, and ties	4.6	4.6	4.0	6.3	6.1	6.2	8.0	7.2
Machine hire, fuel, and oil	.2	.3	.6	.1	(a)	(a)	.....	.1
Insurance	.3	.7	.5	.2	.....	.....	.....	.1
Taxes	2.3	2.3	3.8	3.0	3.8	2.2	4.4	3.6
Interest on loan	.8	1.4	2.1	2.2	2.9	1.8	2.6	2.7
Mule hire	.....	.....	.....	.3	.....	.....	.....	.7
Cash rent	.....	7.9	.....	.....	.....	14.2	.....	.....
Miscellaneous	.5	.7	.6	.1	.....	1.2	.9	(a)

[a] Less than one-tenth of 1 per cent.
[b] Does not include landlord's expense on additional land rented.
[c] Includes expenses on part of land rented out.
[d] Landlord's and tenant's expenses combined.

The expense for feed purchased, such as hay, fodder, grain, and concentrates, is much higher upon the farms operated by colored farmers. In other tables it is shown that much of their additional expense is due to the very low yields of crops they receive. In case of the white farmers the expense for feed ranges from 2.1 per cent for the owners renting additional land to 5.1 per cent for the tenants. For the colored operators this item of expense ranges from 3 per cent for the owners with part rented out to 6.3 per cent for the tenants. In a study and comparison of these farms it is evident that the colored farmers provide a smaller proportion of farm feed for

their stock and garden products for their family. Wage hands and share croppers generally depend upon the farm operator to supply them with these latter products.

The expense for fertilizer is of much concern to these farmers, as this item embraces one-fourth or more of the farm expenses. The share croppers are held responsible for their share of this expense for fertilizer shown under share-cropper fertilizer. On both the white-tenant and colored-tenant farms, the percentage of total farm expenditures for fertilizer is higher than on the owner farms. This does not mean that these men use more or better fertilizer than the owners, but that the greater number of them buy in small quantities and ready mixed. The owners in many cases buy fertilizing materials and do the mixing at home, and many of them buy in large quantities. The cash expense for cotton ginning runs much higher on the farms operated by white tenants and all colored operators. This is due mainly to the fact that nearly all the cotton gins are on the white-owner farms. The interest and depreciation charges upon these gins are not considered in these expenses.

The proportion of expenses required for taxes is, on the average, about 3 per cent, varying somewhat in the different tenures. The item of interest paid upon money borrowed for the payment of the year's operating expenses is only a small item when compared with the expenses of the farm as a whole. This expense is a little higher upon the white-tenant farms and on all the farms operated by colored farmers, but is below 3 per cent of the total in all classes. The expense for the hire of mules is an item of much concern to some of these tenants, both white and colored. Five of the white tenants and 23 of the colored tenants hired mules. The charge for the use of these mules during the year is very reasonable, being, with few exceptions, $25 per mule. These mules were usually owned by the landlord. The expense for rent of land was 7.9 per cent upon the white-owner-additional farms and 14.2 per cent on the colored-owner-additional farms. Labor and fertilizer constitute three-fourths of the expenses on these farms.

RELATION OF TENURE TO THE PERCENTAGE OF RECEIPTS REQUIRED FOR OPERATING EXPENSES.

In Table X is shown the average receipts and expenses and the percentage of receipts required for cash expenses in the different classes of tenure. This table shows why the chance of heavy loss is so great in straight cotton farming. The fact that this crop occupies such a large portion of the crop area and involves such a heavy outlay of money for production makes heavy loss certain when yield or price is low. With the cash expenses 60 per cent of the receipts

it can readily be seen that if for any reason these receipts should drop 40 per cent there would be little if any income left for interest on investment and to pay for the farmer's labor. The raising of an abundance of farm feed and of garden supplies is of exceedingly great value in tiding these farmers over occasional years of low returns, such as are inevitable under the present type of farming. Where a man has but one cash crop a failure is a serious matter, since he is thus forced to carry all of his expenses for another year.

The average receipts and expenses on these farms are some indication of the size of business they are doing. Both the white owners and white owners additional have receipts averaging above $4,000 per farm, while the owners with part rented out have, on the average, $6,400 receipts per farm. The average receipts on 378 farms operated by owners in Chester County, Pa., were $2,312 per farm.[1] In the case of the farms operated by white farmers about 62 per cent of the receipts on the owner farms are required for expenses. The white tenants show a lower expense when figured upon this basis, it being 52 per cent of the farm receipts. The colored operators show a lower percentage of the receipts required for expenses, averaging about 58 per cent upon the owner and 51 per cent upon the tenant farms.

The percentage cash expenses of the total receipts are naturally lower upon the smaller farms, as the operator does the work of a farm hand, while on the large plantations his time is entirely taken up in supervising the work. On the tenant farms the value of the work done by the operator was 16 per cent of the receipts, while with the owners, where a larger business is done, it averaged 10 per cent upon the white and 13 per cent upon the colored farms. This accounts for the fact that the expenses of the white tenants and of all the colored operators as compared with receipts are relatively low.

TABLE X.—*Relation of tenure to percentage of receipts required for operating expenses (Sumter County, Ga.).*

	White operators.				Colored operators.			
	Owners.	Owners (additional).	Owners (part rented out).	Tenants (farm basis).[2]	Owners.	Owners (additional).	Owners (part rented out).	Tenants (farm basis).[2]
Number of farms	160	38	70	49	12	11	8	186
Average total receipts	$4,097	$4,594	$6,400	$1,953	$1,659	$1,646	$3,107	$1,165
Average total expenses	$2,555	$2,796	$3,963	$1,023	$977	$955	$1,812	$589
Average percentage of receipts required for operating expenses	62	61	62	52	59	58	58	51

[1] U. S. Department of Agriculture Bulletin 341.
[2] Landlord and tenant receipts and expenses combined.

RELATION OF TENURE TO YIELD PER ACRE.

Table XI shows the average yields of the more important crops grown in this region for each class of tenure, and for each race. This table indicates the possibilities of increasing profits by getting higher yields. The yield of cotton and of corn grown on the land worked by wage-hand and share-cropper labor is shown separately. As a rule the land worked by wage hands seems to return the highest yields. However, this increase in yield can not be due to the superior efficiency of the wage hand over the share cropper, for, as a rule, the latter is the more industrious laborer. The three more vital factors influencing the production of the higher yields on land worked by wage-hand labor are: First, closer supervision by the operator or manager; second, the land worked by wage hands usually includes the most fertile land on the farm; third, this land usually receives a heavier application of fertilizer and may have more benefit from vegetable matter plowed under than does land worked in other ways. The large variation in yield of crops found in this area was not due so much to the difference in the quality of the soil upon which they are grown as to the difference in method of tillage, holding soil fertility, and planting of seed. Keeping up the productiveness of these soils is a problem of much concern. Practically all these farmers have to depend upon growing crops for supplying organic matter, a thing vital to the maintenance of productiveness in this region. With the long growing season a tremendous quantity of organic matter is used up each year. The soils also lose considerably from erosion unless they are kept well covered. By plowing under cotton and corn stalks and leguminous crops, together with the aid of fertilizer, many of these farmers are keeping their land in a comparatively high state of fertility. Some of these farms could realize substantial increases in yields by selecting better seed as to germination and climatic adaptation, using better tillage methods, and exercising more care in the choice of fertilizers and their application. The yields of crops on the farms in the different tenure classes show some variation, but the comparison of most importance in Table XI is that between the yields received on the farms of white and of colored operators. A bale of cotton, as used in the discussion throughout this bulletin, means 500 pounds of lint cotton. The average yield of cotton on the 317 farms operated by white farmers was 0.55 of a bale per acre, while on the 217 farms operated by colored farmers it was 0.41 bale per acre. Corn on the average yielded 4 bushels per acre higher upon the white-operator farms than upon the colored-operator farms.

TABLE XI.—*Relation of tenure to yields of crops per acre (534 farms, Sumter County, Ga.).*

Crop.	White operators (317 farms).					Colored operators (217 farms).				
	Owners.	Owners additional.	Owners part rented out.[a]	Tenants.	All white operators.	Owners.	Owners additional.	Owners part rented out.[a]	Tenants.	All colored operators.
Yield per acre of—										
Wage cotton.....bales..	0.61	0.66	0.57	0.45	0.58	0.41	0.43	0.33	0.42	0.42
Share cotton.....do....	.53	.51	.53	.46	.52	.37	.46	.34	.41	.39
Total cotton.....do....	.56	.57	.55	.46	.55	.41	.44	.34	.42	.41
Wage corn.....bushels..	16.00	16.00	10.00	12.00	14.00	8.00	9.00	9.00	9.00	9.00
Share corn.....do....	13.00	11.00	12.00	13.00	13.00	8.00	11.00	8.00	9.00	8.00
Total corn.....do....	15.00	14.00	11.00	12.00	13.00	8.00	10.00	8.00	9.00	9.00
Sweet potatoes.....do....	103.00	117.00	104.00	77.00	102.00	62.00	107.00	62.00	79.00	78.00
Oats for grain.....do....	26.00	30.00	25.00	32.00	27.00	10.00	26.00	8.00	16.00	16.00
Cowpea hay.....tons..	.59	.42	.74	.61	.61	.25	.73	.54	.50	.49
Cane sirup.....gallons..	181.00	161.00	191.00	202.00	182.00	209.00	96.00	153.00	138.00	122.00

[a] Does not include crops on land rented out.

Only small areas per farm are devoted to raising sweet potatoes, yet the differences in yield per acre upon the colored and white farms would be of some importance in supplying family needs.

A very small acreage of oats is raised for grain upon the colored-operator farms, and the yield is 11 bushels less per acre than on the white-operator farms. Cowpeas when grown with good methods produce as high as 2 or 3 tons per acre, but owing to the wide range of methods practiced upon these farms the average yield is very low, the white operators getting but 0.61 ton and the colored operators but 0.49 ton per acre.

Sugar cane yielded an average of 182 gallons of sirup per acre on the white-operator and 122 gallons upon the colored-operator farms. The average area devoted to sugar cane by the colored operators was 0.45 acre. If they had realized yields equaling those of the white operators they would have had 27 more gallons of sirup per family.

The share croppers are getting on the average 0.13 bale of cotton and 5 bushels of corn more per acre on the white-operator farms than they receive on the colored-operator farms. In a comparison of the share-croppers' yields of cotton and corn with those of the colored tenants, it will be observed that the croppers have a considerable advantage. The colored tenants are getting on the average 0.42 bale of cotton and 9 bushels of corn per acre. The share croppers on the white-operator farms are getting 0.52 bale of cotton and 13 bushels of corn per acre. The white tenants also get better yields of crops than the colored tenants. While it is true some of these tenants are on the poorer soil types, yet that is only one factor, as the greater portion of the colored tenants represented in

this study are farming on the same farms with the share croppers. Where tenants do not know how to direct the operation of a farm and need supervision, they are better off as share croppers, as then they receive the benefit of the landowner's experience in farming.

There is no doubt that on the soils farmed year after year by many of these colored farmers the supply of vegetable matter is being depleted much faster than where the use of more crops, such as cowpeas, velvet beans, etc., is practiced to supply the soil with nitrogen and keep it in good mechanical condition. Better farm practice is the governing factor in returning the white farmers the higher yields. Many of them plow under heavy leguminous crops to supply vegetable matter to the soil, and they use more fertilizer and practice better tillage methods than does the colored farmer. The latter, as a rule, is very deficient in many of these respects.

SIZE OF FARM.

Where farms are devoted almost entirely to raising crops, as they are in Sumter County, the size of the farm is the most important factor bearing upon the effective use of capital and labor involved in the operation of the farm. In Tables XII to XXIV the number of tilled acres per farm has been used as the measure of size of farm.

RELATION OF SIZE OF FARM TO AMOUNT AND DISTRIBUTION OF CAPITAL.

In many regions the amount and distribution of capital necessary in operating a farm depend upon the type of farming one desires to follow. Since only one type prevails in this region, the only influencing factor on amount and distribution of capital is the size of the farm business.

The relation of size of farm to amount and distribution of farm capital on the 160 white-owner farms is shown in Table XII. The farms in the smallest size group average 34 tilled acres and have $3,000 capital; in the next group they average 74 acres and have $6,365 capital; in the third size group they average 123 tilled acres and have $10,226 capital; in the fourth size group they average 194 tilled acres and have $16,190 capital; in the fifth group they average 328 tilled acres and have $30,921 capital, and in the largest size group they average 595 tilled acres and have $53,253 capital. The average amount of capital in these different size groups is practically the same per tilled acre.

When the capital is divided into real estate and working capital, we find the former item comprising approximately 80 per cent of the total capital in each size group, and working capital 20 per cent. It is when these two items are subdivided that differences in the size groups are found.

TABLE XII.—*Relation of size of farm to distribution of capital on 160 farms operated by white owners, Sumter County, Ga.*

Distribution of capital.	Farms grouped according to the number of tilled acres per farm.						
	50 acres and less.	51 to 100 acres.	101 to 150 acres.	151 to 250 acres.	251 to 450 acres.	Over 450 acres.	Total.
Number of farms	25	41	40	31	12	11	160
Number of tilled acres per farm	34	74	123	194	328	595	158
Total capital per farm	$3,000	$6,365	$10,226	$16,190	$30,921	$53,253	$13,773
Percentage of total capital in—							
Land	58.5	63.1	61.3	62.7	68.5	69.7	65.1
Houses	14.5	9.1	10.4	8.4	4.3	2.5	6.8
Tenant houses	1.6	4.1	4.3	5.3	4.6	5.9	4.8
Gin and equipment	.....	.....	.1	.4	2.0	2.2	.9
Other buildings	5.7	4.1	4.0	3.2	2.1	2.1	3.3
Total real estate	80.3	80.4	80.1	80.0	81.5	82.4	80.9
Workstock	7.2	7.2	7.3	7.7	8.2	6.5	7.3
Other live stock	2.5	1.9	1.7	1.6	1.0	.4	1.3
Machinery	2.8	2.8	2.6	2.8	2.7	2.9	2.8
Feed and supplies	4.8	4.7	5.5	5.9	4.5	4.5	5.0
Cash	2.4	3.0	2.8	2.0	2.1	3.3	2.7
Total working capital	19.7	19.6	19.9	20.0	18.5	17.6	19.1

The lowest percentage investment in land is found in the smallest-size group of farms and the highest percentage in the largest-size group. With the exception of the second size group the percentage of investment in land increases as the size of farm increases and the percentage of total real estate remains about constant. This means that the percentage investment in buildings must decrease as the farms increase in size. It is noteworthy that the percentage investment in dwelling houses decreases rapidly as the farms become larger. It is 14.5 per cent on the smallest farms and only 2.5 per cent on the largest farms. The percentage of investment in dwellings on the small farms being so high it would seem that these farms should have better dwellings than the large farms; in reality, they are not so good. The average value of dwelling per farm in the various size-groups, beginning with the smallest-farm group is $435, $580, $1,065, $1,362, $1,313, and $1,314. With a farm investment of $3,000, a $435 house comprises 14.5 per cent of the total investment; while with a farm investment of $53,253 a $1,314 house comprises only 2.5 per cent of the total investment. Each of the three groups above 150 acres has the same grade of house, but on the 151 to 250 acre farms the house comprises 8.4 per cent of the total investment, on the 251 to 450 acre farms 4.3 per cent, and on the largest farms 2.5 per cent. Only one-fifth of the farms of the smallest size group have houses worth over $500 and only one has a $1,000 house, while on the farms of the largest size group only one has a house worth less than $1,000.

Quite naturally there are many more tenant houses on the large farms than on the small farms and even the percentage investment

in this item increases as the size of farm increases, with the single exception of the 251 to 450 acre group. Only one out of three of the farms with 50 acres or less of tilled land has a tenant house, while of the farms with 51 to 100 tilled acres 83 per cent have tenant houses. All the farms of over 100 tilled acres have tenant houses, ranging in number from 2 to 26, according to size of farm. The farms from 51 to 100 tilled acres average 2; from 101 to 150 acres, 4; from 151 to 250 acres, 6; from 251 to 450 acres, 9; and over 450 acres, 18 per farm.

On the farms of the smallest-size group no cotton gins were found and but 1 until the farms reached over 150 tilled acres. Ginhouses and equipment constitute over 2 per cent of the total investment in the groups of 251 to 450 acres and of over 450 acres.

The investment in barns, sheds, etc., has been grouped under one heading as "other buildings." This investment is relatively higher on the smaller farms, but the relation is not so marked as it is with the dwellings.

Of the working capital the item of "other live stock" is the only one showing any variation from size of farm. On the farms of the smallest size group this item comprises 2.5 per cent of the total investment and then there is a decrease as size of farm increases, until on the farms of the largest size group less than one-half of 1 per cent of the investment is in live stock other than work stock.

The items of work stock, machinery, feed and supplies and cash for operating expenses show practically the same relative importance for all size groups, the variation for any of these items from the average of all farms not equaling 1 per cent.

The highest percentage of investment in cash to run the farm occurs in the largest size group. A large proportion of the men on the larger farms furnished money for the payment of their yearly expenses, yet the average outlay was so large that a number of these had to borrow additional money. There were others who depended entirely upon borrowing for this purpose.

The variation in the different size groups of the investment in work stock is of no consequence. Where a slight variation does exist it is due primarily to a difference in the value of work stock per head.

Table XIII shows the relation of size of farm to the amount and distribution of investment on the 186 farms operated by colored tenants. The amount of capital invested upon these farms by tenant and landlord ranges from about $2,000 to over $7,000. The size of the farm operated by these tenants has no particular bearing upon the proportion of capital invested in real estate, live stock, machinery, and other working capital, excepting in case of the smallest size group. In this group the investment in real estate is high and in work stock low, due mainly to the fact that each of many of these

tenants hires a mule. (See Table XIX, p. 44.) The smallest size group averaged 1.2 head of work stock, the middle group 2.3, and the largest size group 4 per farm. If all the men upon these farms had owned their work mules instead of a part of them renting, the proportion of this investment would have run practically normal in all groups. The investment in other live stock was of very minor importance. Three-fourths of these tenants owned cows, the average value per head being $24. Eight out of every 10 of them kept a few hogs for meat and most of them kept from 10 to 30 chickens.

TABLE XIII.—*Relation of size of farm to distribution of capital on 186 farms operated by colored tenants, Sumter County, Ga.*

Distribution of capital.[a]	Farms grouped according to the number of tilled acres per farm.			
	50 acres and less.	51 to 100 acres.	Over 100 acres.	Total.
Number of farms	96	68	22	186
Number of tilled acres per farm	35	68	136	59
Total capital per farm	$2,021	$3,418	$7,751	$3,210
Percentage of total capital in—				
Land	76.9	75.8	78.5	77.0
Tenant houses	6.8	5.3	5.1	5.7
Other buildings	2.4	2.2	1.5	2.0
Total real estate	86.1	83.3	85.1	84.7
Work stock	6.7	8.3	7.9	7.6
Other live stock	1.7	1.4	.9	1.4
Machinery	2.0	2.2	1.6	2.0
Feed and supplies	3.3	4.5	3.7	3.9
Cash	.2	.3	.8	.4
Total working capital	13.9	16.7	14.9	15.3

[a] Landlord's and tenant's capital combined.

The fact that a large percentage of these colored tenants used for the breaking, preparation of the land, covering of the seed, and the cultivation of the intertilled crops, but one crude plow drawn by one mule, explains why the working capital represents less than 15 per cent of the total investment on these farms. The quality of the buildings furnished these tenants is much below that used by the owners. The climate here is such that cheap buildings are very comfortable during the greater part of the year. This, together with self-interest, prompts landlords to build as cheaply as possible.

RELATION OF SIZE OF FARM TO PROFITS.

The size of the business is one of the most important factors affecting farm profits. A farm must do a certain amount of business in order to yield a satisfactory income. The small farm has relatively much more of its capital in the form of unproductive investment than does the large farm. Labor, mules, and machinery cover

relatively smaller areas on the small farm than on a good-sized one and are not so easily kept continuously busy. Moreover, the overhead charges are proportionately smaller on the larger farms.

In Table XIV is shown the relation of size of farm to capital, receipts, expenses, farm income, and labor income on the white-owner farms. The farmer on the farm of the smallest size group, with $3,000 capital, made a farm income of $288 and a labor income of $138. Even if these men were free from debt, so that the payment of interest would not be necessary, they would rarely be able to save any money after paying the year's living expenses out of a farm income of $288.

The men operating farms of from 51 to 100 tilled acres and having twice as much capital as those of the first group are making a labor income of $307, while the men with 101 to 150 tilled acres are making a labor income of $636, which is over double that of the group below them. The capital invested by the men in this group is over three times that of the first-size group.

TABLE XIV.—*Relation of size of farm to capital, receipts, expenses, and income on 160 farms operated by white owners, Sumter County Ga.*

Tilled acres per farm.	Number of farms.	Average capital.	Receipts.	Expenses.	Farm income.	Labor income.
50 acres and less	25	$3,000	$794	$506	$288	$138
51 to 100 acres	41	6,365	1,773	1,148	626	307
101 to 150 acres	40	10,226	3,186	2,039	1,147	636
Total, 150 and less tilled acres	106	7,028	2,075	1,333	743	391
151 to 250 acres	31	16,190	5,749	3,565	2,184	1,374
251 to 450 acres	12	30,921	8,639	5,682	2,957	1,411
Over 450 acres	11	53,253	17,528	11,642	5,886	3,223
Total, over 150 tilled acres	54	27,013	8,791	5,681	3,110	1,759
Grand total	160	13,773	4,342	2,800	1,542	853

Of all the 160 farms operated by white owners, there were 66 per cent with 150 or less tilled acres per farm. The average capital on these farms was $7,028, and they made a labor income of $391. In other words, two-thirds of these owners got on the average less than $400 for their year's labor. The other one-third, with larger farms and an average of $27,013 capital, made an average labor income of $1,759. The volume of business on these farms was over four times that on the farms of less than 150 tilled acres. The farms with the larger business give in proportion larger profits, providing the business is profitable. If, however, a farmer is doing a losing business, the less he does of it the better.

In Table XV is given the relation of the size of farm to capital, receipts, expenses, and profits of the tenant, and the landlord's per cent upon investment on 186 colored-tenant farms. Over one-half of these tenants were on farms of 50 or less tilled acres, and with an

average of $281 capital they made an average labor income of $196. The value of family labor was $91, and by adding this amount to the farm income the average family income is $301 for this group. The landlord on these same farms had an average investment of $1,740 and made a profit of 8.8 per cent.

The tenants on farms of from 51 to 100 tilled acres in size, with an investment of $573 apiece, made an average labor income of $357. The value of family labor was $237, family income was $622, landlord's profit 10.3 per cent.

The tenants in the largest size group, with over four times as much capital as those of the smallest-size group, made an average labor income of $573. Family labor was valued at $292, family income was $1,029, and landlord's profit 7.4 per cent.

TABLE XV.—*Relation of size of farm to capital, receipts, expenses, and income of operator and landlord on 186 colored tenant farms, Sumter County, Ga.*

Tilled acres per farm.	Number of farms.	Average capital.	Receipts.	Expenses.	Farm income.	Family labor.	Labor income.	Landlord's capital.	Landlord's profit (per cent).
50 acres and less	96	$281	$336	$326	$210	$91	$196	$1,740	8.8
51 to 100 acres	68	573	1,120	735	385	237	357	2,845	10.3
Over 100 acres	22	1,154	2,332	1,595	737	292	679	6,597	7.4
Total	186	491	962	626	336	168	312	2,719	8.9

Of the 186 colored tenants 182, or practically 98 per cent, were operating farms of 150 or less tilled acres per farm. These men had an average of $459 capital, and made a farm income of $316 and a labor income of $293. The average capital of the landlord was $2,543; profit 9.1 per cent.

The profits of these tenants were in direct proportion to the size of business they were able to handle. The tenant farming the most acres usually had the largest family, and the value of the labor performed by the family was highest. The older tenants were on the larger farms. In the smallest size group their average age was 42, in the next larger size group it was 44, and in the largest size group it averaged 48 years. The tenants reported hauling their cotton an average of 5.8 miles to market, with no relative difference between the size-groups. Tenants with a small amount of capital devoted to crop farming have greater opportunities in this region than in regions where live stock is essential, because the live-stock enterprise calls for much additional investment above that required for raising crops.

RELATION OF SIZE OF FARM TO DISTRIBUTION OF CROP AREA.

In Table XVI is shown the relation of the number of acres of tilled land per farm to the distribution of crop area on the white-owner farms. The farms in the smallest size group had 45.9 per cent of

the crop area devoted to cotton and 38.4 per cent devoted to corn, while those in the largest size group had 64.3 per cent of the crop area in cotton and 22.3 per cent in corn. Every one of the 160 farmers raised both cotton and corn; 21 of these men had below 40 per cent of their crop area in cotton, and 12 had over 70 per cent; 15 had less than 20 per cent of their crop land in corn, and 37 had over 40 per cent.

TABLE XVI.—*Relation of size of farm to distribution of crop area on 160 farms operated by white owners, Sumter County, Ga.*

Crop.	Percentage of crop area in each specified tilled acreage group.					
	50 acres and less.	51 to 100 acres.	101 to 150 acres.	151 to 250 acres.	251 to 450 acres.	Over 450 acres.
Wage cotton	31.5	22.1	13.1	19.9	25.9	25.7
Share-cropper cotton	14.4	25.7	39.4	37.3	30.9	38.6
Total cotton	45.9	47.8	52.5	57.2	56.8	64.3
Wage corn	34.3	22.3	14.8	13.7	16.9	9.5
Share-cropper corn	4.1	13.9	16.2	15.2	10.4	12.8
Total corn	38.4	36.2	31.0	28.9	27.3	22.3
Oats for grain	6.3	8.5	9.1	9.1	11.9	9.0
Wheat and rye for grain	.2	.1	.7	.8	.1	.2
Cowpea hay and seed	1.3	.8	.8	[1]	.8	.3
Second crop	12.4	10.1	11.3	11.4	13.4	14.3
Other hay and forage	1.3	2.2	.8	.8	.9	.7
Second crop	.....	1.0	.4	1.3	1.3	.....
Peanuts	2.8	1.7	2.5	1.2	.4	.7
Second crop	1.6	1.4	2.5	2.1	.3	.....
Sorghum	.1	.2	.2	.3	.2	.5
Sugar cane	.7	.5	.5	.3	.2	.2
Sweet potatoes	1.1	.6	.6	.3	.5	.3
Watermelons	.7	.4	.4	.1	.4	.4
Garden, truck, etc	1.2	.9	.6	1.0	.4	1.0
Fruit and nuts	.....	.1	.3	[1]	.1	.1
Total per cent of crop area used for second crop	14.0	12.5	14.2	14.8	15.0	14.3

[1] Less than one-tenth of 1 per cent.

Oats for grain were grown on three-fourths of these farms, but the acreage generally was small. On one-half of the farms reporting, less than 10 per cent of the crop area was in oats. Only a few grew wheat or rye for grain, and the proportion of area devoted to these is about the same in all size groups.

Cowpeas are of great importance to all these farmers as a second crop. Of all the land devoted to such crops 85 per cent is occupied by cowpeas. There is no wide variation in the different size groups in area devoted to second crops or hay and forage crops. Practically all the minor crops shown in Table XV are, relatively speaking, grown more extensively on the small farms than on the large farms. The larger farms devote more area to cotton. The small farms tend more to diversification than do the large plantations. Unless the man on the small farm raises feed for stock and products for home use he generally suffers a very serious financial setback in case of a poor year.

Table XVII shows the relation of size of farm to distribution of crop area on colored-tenant farms. This table reveals most strikingly the similarity of crop conditions that exist in each size group. Over 90 per cent of the crop area on these farms is devoted to raising cotton and corn, and the only particular variation in the distribution of this area is that on the larger farms a little more area is devoted to cotton and less to corn. As compared with the white owners in Table XVI, these tenants have about 10 per cent more of the crop area in cotton. This table is of most interest in showing how little attention these farmers give to the growing of crops other than cotton and corn. Besides these crops, oats for grain and forage crops grown for hay are the only ones that occupy over 1 per cent of the tilled area for first crops. The area devoted to second crops is mostly used for growing cowpea hay and seed. Excepting in the smallest size group there is no relation between size of farm operated and proportion of the tilled area used for a second crop by these tenants. They utilize less than one-half as much of the crop area for second crops as do the white operators.

TABLE XVII.—*Relation of size of farm to percentage of crop area devoted to each crop on 186 farms operated by colored tenants, Sumter County, Ga.*

Crop.	Percentage of crop area in each specified tilled acreage group.		
	50 acres and less.	51 to 100 acres.	Over 100 acres.
Wage cotton	64.9	60.2	47.7
Share cropper cotton	.4	4.6	19.4
Total cotton	65.3	64.8	67.1
Wage corn	27.9	26.2	18.2
Share cropper corn	.2	1.1	6.8
Total corn	28.1	27.3	25.0
Oats for grain	1.9	3.0	3.0
Wheat and rye for grain	.....	.....	(a)
Cowpea hay and seed	.1	.4	1.3
Second crop	6.9	4.8	5.6
Other hay and forage	2.3	2.0	1.5
Second crop	1.3	.3	.5
Peanuts	.2	.5	.6
Second crop	.3	.1	.....
Sorghum	.2	.2	.2
Sugar cane	.3	.5	.3
Sweet potatoes	.5	.5	.4
Watermelons	.3	.3	.2
Garden truck, etc.	.8	.5	.4
Total cotton and corn	93.4	92.1	92.1
Total all other crops	6.6	7.9	7.9
Total per cent of crop area used for second crop	8.5	5.2	6.1

[a] Less than one-tenth of 1 per cent.

RELATION OF SIZE OF FARM TO DISTRIBUTION OF FARM RECEIPTS.

Table XVIII shows the relation of size of farm to distribution of receipts on the farms operated by white owners. With the exception of the farms of the smallest size and largest size groups, the receipts from cotton and seed have about the same relative weight in all the

size groups. The smallest size group has the greatest diversity of receipts, while the largest size group has the least. This substantiates the data shown in Table XVI, which brings out the fact that the men on the small farms devoted less area to cotton and more to the raising of diversified crops.

Of these 160 farmers, only 1 in 7 received less than 70 per cent of his total receipts from the sale of cotton and seed, while over one-fourth the number had over 90 per cent of their receipts from this one source. Cotton ranges from 76 per cent to 91 per cent of the total receipts in the several size groups. Only 9 men received more than 10 per cent of their total receipts from the sale of corn. The receipts from this source range from 1.5 per cent in the smallest size to 3.7 per cent in the largest size group. Nearly all the grain receipts are from the sale of oats. Thirty-two farms reported the sale of oats, but on 28 of these the receipts from this source were less than 10 per cent of the total. Very little hay was sold. Twenty-five farms, a few from each group, reported receipts from hay, but on only 3 of these farms did the receipts exceed 10 per cent of the total sales. Fifty-nine of these men sold cane sirup, but the receipt from this source was usually below 5 per cent of the total and only exceeded 10 per cent on 2 farms. Thirty-three farmers sold a few sweet potatoes and 9 received small receipts from the sale of fruit or nuts. Miscellaneous crop receipts include sales on a few farms and in small amounts of cowpea seed, peanuts, watermelons, and garden products.

TABLE XVIII.—*Relation of size of farm to type of farming, as indicated by sources of income on 160 farms operated by white owners, Sumter County, Ga.*

Source of income.	Percentage of total receipts in each specified tilled-acreage group.					
	50 acres and less (25 farms).	51 to 100 acres (41 farms).	101 to 150 acres (40 farms).	151 to 250 acres (31 farms).	251 to 450 acres (12 farms).	Over 450 acres (11 farms).
Cotton	69.1	74.8	75.2	75.0	72.9	78.4
Cotton seed	7.1	9.6	10.5	10.1	12.2	12.5
Total cotton	76.2	84.4	85.7	85.1	85.1	90.9
Corn	1.5	2.5	3.8	3.7	3.1	3.7
Small grains	.5	.8	.8	1.0	2.0	1.5
Hay	.9	.5	.3	1.0	.6	1.0
Cane sirup	1.4	.8	.6	1.1	.5	.1
Sweet potatoes	.5	.3	.5	(a)	.6	.2
Fruit and nuts	.1	(a)	.2	(a)	.....	.....
Miscellaneous crops	.7	.5	.6	.2	.7	.5
Total crops	81.8	89.8	92.5	92.1	92.6	97.9
Increase feed and supplies	6.3	1.6	.5	1.3	.....	.3
Cattle	3.4	1.8	2.0	.4	.3	(a)
Horses and mules	.8	.....	.3	.1	.6	.....
Hogs	3.4	2.3	2.4	4.7	1.4	.3
Poultry	2.2	1.2	1.2	.2	.4	(a)
Bees [b]	.1	(a)	.....	.....	.....	.....
Total stock	9.9	5.3	5.9	5.4	2.7	.3
Miscellaneous sources	2.0	3.3	1.1	1.2	4.7	1.5

[a] Less than one-tenth of 1 per cent. [b] Two farms reported small sales from bees.

The receipts for practically all the farm crops sold, outside of cotton and seed, are of a local nature, as very few of these crops are shipped out of the county.

The increase in feed and supplies represents a gain in the amount and value of feeds and other farm supplies at the end of the year over that on hand at the beginning of the year. This item was of no consequence, excepting in the smallest-size group, where an increased amount of cotton seed was held over for seed, feed, and fertilizing purposes. The receipts from crops and feed and supplies constituted over 98 per cent of the total receipts upon the farms in the largest-size group.

The receipts from the sale of cattle, hogs, and poultry and their products were relatively of more importance to the farmers with the smaller farms. Live stock and products constituted 9.9 per cent of the total receipts on the farms in the smallest-size group and less than 1 per cent in the largest-size group. As a general rule, above the mules necessary for carrying on the farm work, only enough live stock is kept to use up the feed crops raised on the farm that have no sale value.

The receipts from miscellaneous sources are of minor importance and vary from 1.1 to 4.7 per cent.

Table XIX shows the relation of size of farm to the distribution of receipts on colored-tenant farms. Over 90 per cent of the total farm sales from these farms comes from cotton alone. On the average, no other farm receipt equals 1 per cent of the total, excepting feed and supplies and outside labor. No variation is shown between the size of farm and distribution of receipts.

TABLE XIX.—*Relation of size of farm to distribution of farm receipts on 186 farms operated by colored tenants, Sumter County, Ga.*

Source of income.[a]	Percentage of total receipts in each specified tilled-acreage group.			
	50 acres and less (96 farms).	51 to 100 acres (68 farms).	Over 100 acres (22 farms).	Total (186 farms).
Cotton	82.2	83.0	83.4	82.8
Cotton seed	11.7	11.0	11.4	11.4
Total cotton	93.9	94.0	94.8	94.2
Corn	.2	.2	1.3	.6
Small grains				
Hay	(b)	.1	.1	(b)
Cane sirup	.2	.3	.2	.2
Sweet potatoes	.2	.4	.1	.3
Fruit and nuts		.1		(b)
Miscellaneous crops	.3	.4	(b)	.2
Total crops	94.8	95.5	96.5	95.5
Increase in feed and supplies	2.3	2.4	2.2	2.4
Cattle	.6	.4	.5	.5
Horses and mules				
Hogs			.1	(b)
Poultry	.4	.3	.2	.3
Total stock	1.0	.7	.8	.8
Outside labor	1.9	1.4	.5	1.3

[a] Landlord's and tenant's receipts combined. [b] Less than one-tenth of 1 per cent.

RELATION OF SIZE OF FARM TO DISTRIBUTION OF EXPENSES.

Table XX shows the relation of size of farm to the distribution of expenses on the farms operated by white owners. The larger the size of business, the greater becomes the expense for different things, even though the proportion may be constant. The average expense for labor outside that performed by the operator was $196 per farm in the smallest-size group and $5,412 in the largest-size group. About one-half of the labor expense on the largest farms was for share croppers. In all the size-groups, except the first, the expense for labor was over 50 per cent of the total farm expenditures. This low labor cost, so noticeable in the smallest-size group, and also showing to some extent in the 51 to 100 acre group, is due to these farms being of such size that the operator did all or a part of the work of a laborer. After these farms become of such size (about 100 tilled acres) that the operator's time is mostly taken up in the general supervision of the business, the expense for labor is higher and quite uniform. The small farms furnish a greater amount of family labor than the large farms, but this difference is offset by the fact that the larger farms hire more wage hands.

The machinery-repair charge is considerably higher on the larger farms, chiefly because these farms maintain more numerous and more expensive implements than do the smaller farms. The building-repair expense runs quite uniform in all the groups, but repairs of fences are relatively higher upon the smaller farms.

TABLE XX.—*The relation of size of farm to distribution of farm expenses on 160 farms operated by white owners, Sumter County, Ga.*

Item of expense.	Percentage of farm expenses in each specified tilled acreage group.					
	50 acres and less (25 farms).	51 to 100 acres (41 farms).	101 to 150 acres (40 farms).	151 to 250 acres (31 farms).	251 to 450 acres (12 farms).	Over 450 acres (11 farms).
Wage hands	6.4	8.6	7.9	12.2	15.9	15.4
Cotton picking and chopping (extra labor)	2.6	6.5	4.2	5.7	8.0	9.7
Share croppers	21.4	31.8	42.7	37.8	29.7	30.5
Family labor	15.2	4.7	3.0	1.9	.5	.....
Total labor	45.6	51.6	57.8	57.6	54.1	55.6
Repairs:						
Machinery	.5	.9	.6	1.0	1.3	2.7
Buildings	2.6	3.6	1.8	2.0	3.0	2.2
Fences	4.3	.9	.4	.6	.4	.....
Terracing	.7	.3	.3	.4	(a)	.2
Feed:						
Hay, etc	.9	.6	.4	.7	.6	.2
Grain, etc	6.4	2.1	2.9	1.7	1.3	1.1
Horseshoeing	.3	.4	.2	.2	.3	.1
Breeding fees and veterinary	(a)	.2	.2	.2	.2	.1
Seeds and plants	2.2	1.1	.8	1.1	.4	.8
Fertilizer:						
Croppers	5.7	10.3	15.9	12.6	11.2	14.8
Wage land	20.3	17.1	9.0	12.4	17.6	14.5
Thrashing and twine	.1	.2	.4	.4	.3	.2
Ginning, bags, ties, etc	4.7	5.1	5.0	4.6	5.1	3.9
Machine hire, fuel, and oil	.1	.1	.2	.1	.2	.6
Insurance	.5	.3	.3	.5	.5	.1
Taxes	3.5	3.1	2.5	2.5	2.4	1.6
Interest on loan	.8	1.2	1.0	1.1	.4	.6
Miscellaneous	.8	.9	.3	.3	.7	.7

(a) Less than one-tenth of 1 per cent.

The purchase of feed is a small item of expense when considering all these farms together, but in this study of the farms in the several size-groups most of the feed that is purchased is bought by the smaller farms and consists chiefly of grain and concentrate feeds.

The cost of fertilizer was $112 per farm for the smallest-size group and $3,032 for the largest-size group. The larger farms have the higher percentages of expenses for fertilizer. This is in accord with Table XVI, which shows that these large farms raise more cotton. Practically all the small farmers hire their cotton ginning done, while many of the farmers on the large farms own gins. The outlay per bale, however, is about the same in either case, when the expense for cloth, ties, interest, depreciation, etc., are all considered.

Taxes are proportionately higher upon the small farms, ranging from 3.5 per cent for the smallest-size group to 1.6 per cent for the largest-size group. The interest charge on the loan for carrying on the farm business during the year is of only minor importance when compared with cash expenses as a whole.

TABLE XXI.—*Relation of size of farm to distribution of farm expenses on 186 farms operated by colored tenants, Sumter County, Ga.*

Item of expense.[a]	Percentage of farm expenses in each specified tilled acreage group.		
	50 acres and less (96 farms).	51 to 100 acres (68 farms).	Over 100 acres (22 farms).
Wage hands	2.1	4.3	6.3
Cotton picking and chopping (extra labor)	4.5	3.7	6.8
Share croppers	.6	4.0	20.6
Family labor	30.2	34.4	19.3
Total labor	37.4	46.4	53.0
Repairs:			
Machinery	.6	.9	.6
Buildings	.3	1.3	.3
Fences	.7	.4	.4
Terracing	.5	.2	.....
Feed:			
Hay, etc.	2.2	1.7	1.4
Grain, etc.	6.4	4.3	3.5
Horseshoeing	.2	.2	.2
Breeding fees and veterinary	.2	.1	(b)
Seeds and plants	1.4	1.0	.9
Fertilizer:			
Croppers	.2	1.7	8.8
Wage land	32.9	27.8	18.0
Thrashing and twine	.....	(b)	(b)
Ginning, bags and ties	7.6	7.4	6.7
Machine hire, fuel and oil	(b)	.1	.1
Insurance	.1	(b)	.2
Taxes	4.5	3.4	3.2
Interest on loan	3.5	2.4	2.4
Miscellaneous	(b)	(b)	.1
Mule hire	1.3	.7	.2

[a] Landlord's and tenant's expenses combined. [b] Less than one-tenth of 1 per cent.

In Table XXI is shown the relation of size of farm to distribution of expenses on 186 colored-tenant farms. It will be observed that, with the exception of a little labor in "chopping" and picking cotton, all the labor on the farms of 50 or less tilled acres is performed by the operator and his family. Even on the farms between 50 and 100 tilled acres the operator and his family did the greater portion of the work. On the farms above 100 tilled acres in size the labor expense was 53 per cent of the total expenses. Most of the additional labor necessary in operating the large farms is performed by share croppers. These men buy considerable feed, purchases averaging 2 per cent for roughage and 5 per cent for grain feeds. Practically all this purchased feed is for the keep of work mules, as the mule represents about all the stock of the farm of this type, aside from a cow and a few chickens. This item seems to be most important upon the very small farms.

The expense for fertilizer is 30 per cent of the total. This expense averaged $100 per farm in the smallest-size group and $406 in the largest-size group. Many of the tenants have little or no capital free from mortgage, and in order to purchase fertilizer on credit they are compelled to pay exorbitant prices to cover the greater risk. The expense for taxes averaged 4.5 per cent upon the smallest-size group and 2.9 per cent on the largest-size group. Practically all the tenants borrow money for the payment of operating expenses and pay rather high interest rates. This item ranges from 3.5 per cent of the total cash expenses in the smallest-size group to 2.2 per cent on the largest-size group. Labor and fertilizer constitute three-fourths of the total expenses of the 186 farms.

RELATION OF SIZE OF FARM TO YIELD OF CROPS.

In Table XXII is shown the relation between size of farm and yield of crops on the 160 white-owner farms.

In a region devoted strictly to crop farming, and especially where the area devoted to one intensive crop, as cotton, occupies over one-half of the available crop land, the yield and price received for this crop becomes of first importance in relation to profits. The yield of cotton is so closely associated to farm profits that the large farmer as well as the small farmer is striving for maximum yields. It will, therefore, be noticed from Table XXII that size of farm does not materially influence the yield of cotton.

The yield of corn varies in the several size groups, with a tendency to somewhat higher yields upon the large farms. The three smaller size groups are each below the average, 15 bushels, while the three larger-size groups are each above that average.

In a comparison of the yield of oats for grain, the large farms seem to have a slight advantage.

TABLE XXII.—*Relation of size of farm to yield per acre of crops on 160 farms operated by white owners, Sumter County, Ga.*

Crop.	Yield of crops per acre in each specified tilled acreage group.						
	50 acres and less	51 to 100 acres.	101 to 150 acres.	151 to 250 acres.	251 to 450 acres.	Over 450 acres.	Total.
Wage cotton.....bale..	0.50	0.58	0.62	0.68	0.55	0.63	0.61
Share-cropper cotton.....do....	.52	.57	.54	.56	.50	.50	.53
Total cotton.....do....	.51	.57	.56	.60	.52	.55	.56
Wage corn.....bushels..	13	13	14	19	18	19	16
Share-cropper corn.....do....	14	11	11	14	16	14	13
Total corn.....do....	13	12	13	17	17	16	15
Oats for grain.....do....	28	24	22	24	31	29	26
Cowpea hay.....ton..	.89	.66	.83	.88	.67	.63	.72
Sweet potatoes.....bushels..	112	112	98	93	100	117	103
Cane sirup.....gallons..	176	161	154	261	166	135	181

There is such a wide range of method in managing the cowpea crop that it is hard to make a comparison of the yields on farms of different size. In this area cowpeas are most commonly grown after winter oats or other grains and used for hay, while the crop for seed is usually grown between the corn rows. Table XXII shows that on the average these men harvested about three-fourths of a ton per acre of this crop and that the size of the farm had no appreciable bearing upon the yields received.

Sweet potatoes were raised for home use on a majority of the farms, but the yield was not affected in any way by the size of the farm. The yield ranged from 93 to 117 bushels per acre.

The growing of sugar cane was mostly for home use. This crop averaged one-half acre per farm, yielding at the rate of 181 gallons of cane sirup per acre, and showed a wide range in yield for the different groups.

The larger farms devoted relatively more land to cotton and necessarily used more fertilizer per tilled acre, which undoubtedly is the big factor in returning them the larger yields they received from some of the important crops other than cotton.

In Table XXIII is shown the relation between size of farm and yield per acre of crops on the 186 colored-tenant farms.

Cotton, with very little variation in the several size groups, yielded an average of 0.42 bale per acre. On the average, these men had 38 acres of cotton. If they had gotten the same yield as the white owners, they would have had 5 more bales of cotton per farm.

TABLE XXIII.—*Relation of size of farm to yield per acre of crops on 186 farms operated by colored tenants, Sumter County, Ga.*

Crop.	Yield per acre of crops in each specified tilled acreage group.			
	50 acres and less.	51 to 100 acres.	Over 100 acres.	Total.
Wage cotton.....bales..	0.40	0.43	0.44	0.42
Share-cropper cotton.....do....	.43	.43	.41	.41
Total cotton.....do....	.41	.43	.43	.42
Wage corn.....bushels..	8	9	8	9
Share-cropper corn.....do....	6	9	9	9
Total corn.....do....	8	9	9	9
Oats for grain.....do....	10	17	16	16
Cowpea hay.....tons..	.59	.66	.40	.52
Sweet potatoes.....bushels..	68	94	59	79
Cane sirup.....gallons..	116	131	175	138

There was an average of 16 acres of corn per farm, with a yield of only 9 bushels per acre. If their average yield had been as high as that of the owners shown in Table XXII these men would have averaged nearly 100 more bushels of corn for farm and home use. This would have reduced their feed bill, shown in Table XXI, considerably. Cotton and corn, as shown in previous tables, occupied over 90 per cent of the crop area worked by these tenants, and many of them had practically all their tilled area in these two crops.

A total of 50 acres of sweet potatoes, or a little over one-fourth acre per farm, were raised by the tenants, with an average yield of 79 bushels per acre.

An average of less than one-fourth acre of sugar cane was grown, with a yield of 138 gallons of cane sirup per acre.

Oats for grain were not grown so generally by the colored as by the white farmers. The oats that were cut for grain averaged less than 1 acre per farm, with a yield of about 16 bushels per acre. Eighty per cent of the oats raised by these farmers was cut for hay, with an average yield of 0.66 ton per acre. There was an average of about 2 acres of cowpeas for hay grown on these farms, which yielded 0.52 ton per acre.

The size of the farm operated by these tenants has very little bearing on method of operation or yields received. By only a slight change in the management of these farms they could be made to return adequate forage and grain crops for farm and home use. While about 10 per cent of these men operate farms with poorer soil, the unproductive, impoverished condition of much of the land they farm is due largely to the continuous growing of poor crops of cotton on the same soil year after year by the use of commercial fertilizer and without the addition of anything to the soil in the way of veg-

etable matter. It is also quite probable that by using better machinery and practicing better tillage methods the yields could be raised considerably.

RELATION OF SIZE OF FARM TO TYPE OF MACHINERY USED.

Twenty-five farms with 50 tilled acres or less.—On these farms there were usually found a one or two horse wagon, 1 to 4 one-horse plow stocks, a cotton planter, plow and wagon gears for the work stock, and necessary hand tools. In addition to these items, two-thirds of these farms had one or two horse turning plows, one-half had one-horse fertilizer distributors, and 3 farms each had a mower and hay rake. It was only an occasional farm that had any cultivating tools other than plow stocks.

Forty-one farms with 51 to 100 tilled acres.—One-half of these farms had more than 1 wagon, usually a one-horse and a two-horse wagon. Practically all had a two-horse turning plow, and an occasional farm had 2. In addition to the two-horse plows, about one-third of these farms had one-horse plows. Of the cultivating tools, every farm had one-horse plow stocks, and 3 farms had two-horse stocks. In addition to plow stocks, one-third of them reported other types of one-horse cultivating tools, and 1 farm had a two-horse cultivator. One-half of these farms had two-horse harrows, usually a disk, but occasionally a spike-tooth. One-half had each a mower and hay rake, and 5 reported grain binders.

Seventy-one farms with 101 to 250 tilled acres.—The one-horse plow stock is found on every farm in this group, but other one-horse cultivating tools are of more frequency than in the groups already discussed, and 1 in 10 had a two-horse cultivator. Mowers, hay rakes, and harrows were found on two-thirds of the farms. One out of every 2 farms reported grain binders. Some items of machinery not found on the smaller farms occur with more or less frequency on farms of this size. Twelve farms had engines, 7 had hay presses, 3 had wood saws, 2 had feed grinders, 2 had pea hullers, 1 had a manure spreader, and 1 a lime spreader.

Twenty-three farms with 251 tilled acres and over.—The difference in type of machinery found on these farms from that on the farms of 100 acres and less is quite marked. While the single-plow stock is in general use on farms of all sizes, there is an increase in the use of other one-horse cultivating tools and in the use of two-horse cultivators on the large farms. Seventy per cent of these large farms reported numerous one-horse cultivating tools other than plow stocks, and over one-fifth of them had two-horse cultivators. Practically all the farms had harrows, mowers, rakes, and grain binders. One in 3 farms had sulky plows and 3 had tractor plows. Three-fourths of them had engines and several had stump pullers.

RELATION OF SIZE OF FARM TO THE EFFICIENT USE OF LABOR, MULES, AND MACHINERY.

In Table XXIV is shown the effect size of farm has upon the efficient use of labor, mules, and machinery in this area. The percentage increase of the cotton area is of importance in its relation to the value of labor per tilled acre on the different size farms. The very small farms had but 46 per cent of the tilled area in cotton, while the very large farms had 64 per cent. With but one exception each size-group had a greater percentage of its tilled area devoted to cotton than the next smaller-size group. The value of labor, averaging $11.79 per acre, is rather uniform in all the size-groups, but when we consider that cotton requires a greater amount of labor per acre than most other crops raised in this section, the superior efficiency of the large farms over the small farms in the use of labor is seen. With practically the same amount of labor per tilled acre, the very large farms have 18 per cent more of their area in cotton.

TABLE XXIV.—*Relation of size of farm to various factors of efficiency on 160 farms operated by white owners, Sumter County, Ga.*

Factor of efficiency.	Tilled acreage groups.						
	50 acres and less (25 farms).	51 to 100 acres (41 farms).	101 to 150 acres (40 farms).	151 to 250 acres (31 farms).	251 to 450 acres (12 farms).	Over 450 acres.	Total (160 farms).
Per cent of tilled area in cotton	46	48	52	57	57	64	57
Value of labor per tilled acre	$11.23	$11.32	$12.00	$12.69	$10.97	$11.58	$11.79
Number of acres of cotton per mule	10	12	14	16	16	19	16
Number of acres of other crops per mule	11	12	12	11	11	10	11
Value of machinery per tilled acre	$2.40	$2.40	$2.18	$2.33	$2.59	$2.61	$2.43

Another example of increase in efficiency as the farms increase in size is furnished by the work stock. On the smallest farms 1 mule works 10 acres of cotton and 11 acres of other crops. As the farms increase in size the number of acres of cotton per mule increases and the number of acres of other crops remains about constant until on the very large farms 1 mule works 19 acres of cotton and 10 acres of other crops. Thus a mule on any size farm works practically the same number of acres of feed and home-supply crops, but on the very large farms works almost twice as many acres of cotton as the mule on the very small farms.

The value of machinery per tilled acre shows but little variation. There is some difference in the type of machinery found on different size farms, but the large farms are enabled to use a considerable amount of improved and labor-saving machinery with no greater investment per tilled acre than that found on the small farms.

DIVERSITY OF FARM RECEIPTS.

The tables previously discussed with reference to tenure and size of farm have shown that cotton raising is the major enterprise of this district and that receipts from this crop represent nearly 90 per cent of the income on all the farms. In a study of the 160 farms operated by owners only 12 had less than 60 per cent of their total receipts from the sale of cotton, while three-fourths had over 80 per cent of their income from this one source.

Of the 12 farmers with under 60 per cent of total receipts from cotton, 6 raised diversified crops with cotton as the leading cash crop and hogs as the leading live-stock enterprise. These men bought very little feed. The farms had an average of 121 tilled acres and returned an average labor income of $239. Two farmers got nearly 40 per cent of their total receipts from the sale of dairy cattle and their products. They raised only small areas of cotton and instead devoted most of their crop lands to raising corn, grain, and hay crops. One had 118 acres of crops, 9 cows, 1 bull, 4 horses, 4 brood sows, and 375 chickens. Besides supplying roughage for his live stock, his receipts from crops and other farm sales were as follows: Cotton, $200; corn, $25; sweet potatoes, $50; watermelons, $150; fruit and nuts, $60. From the 9 cows he sold butter at 35 cents per pound to a retail trade, averaging $95 per head, besides receiving a good return from the sale of buttermilk. With 4 sows the receipts from hogs were $233; 375 hens returned $617 from the sale of young chickens and eggs. He operated this farm with the help of two wage hands, hired for 6 months, and made a labor income of over $1,000. The other farm was much smaller, only having 42 acres of well-diversified crops and with 48 per cent of the receipts from cows, hogs, and poultry. This farmer operated with one wage hand 6 months in the year and got nearly $500 for his year's labor.

The only other farmer found following a type of farming different from that of the so-called "cotton farmer" was one operating a large business with a great diversity of income. This farm contained 268 acres of crops, of which 20 per cent was devoted to cotton, 31 per cent to corn, 25 per cent to grain, 23 per cent to cowpea hay, and 3 acres to sugar cane. Ground peas were grown in the corn. The crop yields on this farm as compared with all the farms studied were excellent. The farm sales were as follows: Cotton, $3,743; corn, $1,060; grain, $1,040; hay, $874; cane sirup, $810; pork, $925; other stock, $64. Of this man's grain sales, $1,000 was from the sale of 1,000 bushels of oats for seed. Aside from some corn, his hogs were practically raised and fattened upon ground peas. This farm was operated with the help of three wage hands and one cropper family, and $600 extra labor. It returned the operator a labor income of $4,468. This was the only well-diversified farm found in this study. The returns this

man received were dependent upon the demands from local markets. A return of $1 per bushel for corn, $1 per bushel for oats, and $23 per ton for hay is much more than these crops could command if many more were to grow them for the same market.

A farm representative of the cotton type was found which is quite comparable, as to size and soil type, with the diversified farm just mentioned. This farm contained 243 acres of crops, of which 62 per cent was in cotton, 25 per cent in corn, 6 per cent in oats, 5 per cent in cowpea hay, and 2 per cent in other crops. Yields were relatively high. The farm sales were as follows: Cotton and seed, $8,700; corn, $250; oats, $22; sirup, $50; pork, $225; wood, $400. It was operated with the help of six wage hands and two croppers' families and $800 extra labor. It returned the operator a labor income of $4,344. This farm represents a typical cotton farm of this region operated under excellent management. Under its high state of efficiency the cost of producing cotton was below 7 cents per pound. Cotton could be sold from this farm with its present yields at 10 cents per pound and still return the operator over $2,000 labor income.

The fact that only one farmer in the entire area is practicing strictly diversified farming is an indication that care should be exercised in contemplating changes to this type. The cotton type of farming has been practiced for many years in this region and has doubtless become a much easier type of farming for most of these farmers to follow than would a type involving a greater degree of diversity. They have become skilled in the economic use of capital and labor for the production of this crop and at the same time maintaining soil fertility. The small amount of capital owned by many of these farmers will go further when invested in one enterprise than when distributed among many. This type has advantage also in that it permits the use of very large fields, which greatly facilitates the use of the great amount of labor involved in the operation of farms of this type.

On the other hand, diversified farming gives better insurance against total failure and will lend to the eradication of the crisis of the boll weevil which is now invading the county. When properly organized it gives opportunity to use land, labor, mules, and machinery effectively throughout the year. The income is usually more evenly distributed than that from cotton, thus making it easier for the farmer to operate on a cash basis during the spring and summer months, when money is needed for paying farm expenses. Failures are often due to conditions over which the farmer has no control, such as climate, markets, or pests. If a farmer is raising several important crops they are not all liable to fail in any one year.

This also lends itself to the establishment of a crop rotation. A well-planned rotation designed for the improvement of the soil and the increased production of the crops should be the aim of all these farmers. This not only supplies ample farm feeds, but, more im-

portant still, aids materially in increasing the production of the main money crop. For, after all, cotton is the staple crop of the region and the general scheme of farming must always be shaped with the welfare of the cotton crop in view.

THE RELATION OF SIZE OF FARM AND YIELD PER ACRE OF COTTON TO PROFITS.

The two factors which more than all others influence profits on these farms, providing a normal price is received for cotton, are size of farm and yield of cotton per acre. While farmers are not always in a position to increase the size of their farms, Table XXV shows the possibilities many of them have of increasing their profits quite materially by getting higher yields per acre. Along with these two factors, however, are interrelated many others of importance, but when the farms are grouped on the basis of these two outstanding factors the others seem to bring about in each group the same relative results. The yield per acre of cotton is of great importance to all these farmers, but the chance for the greatest immediate increase in profits is for the men who are getting poor yields on the large areas.

TABLE XXV.—*Relation of size of farm and yield of cotton per acre to labor income on 268 white owner, owner additional, and owner part rented out farms, Sumter County, Ga.*

Tilled acreage groups.	Number of farms and average labor income in each specified yield of cotton per acre groups.							
	One-half bale and less.		One-half to two-thirds bale.		Over two-thirds bale.		Total.	
	Number of farms.	Average labor income.	Number of farms.	Average labor income.	Number of farms.	Average labor income.	Number of farms.	Average labor income.
100 acres and less	43	120	33	308	24	504	100	275
101 to 250 acres	[a] 32	423	46	749	25	1,721	103	884
Over 250 acres	30	430	22	3,159	13	4,649	65	2,197
All farms	105	301	101	1,130	62	1,864	268	975

[a] One of these farms is a dairy farm with high-quality cows.

In regard to the farmers with 100 or less tilled acres per farm it will be observed that these men with cotton yields of one-half bale or less per acre made an average labor income of only $120, while with the same size farms the men with cotton yielding over two-thirds of a bale per acre made an average labor income of $504.

Out of the 103 farm operators with 101 to 250 tilled acres per farm, there were one-third with yields of cotton of one-half bale or less per acre and their average labor income was $423. With farms of the same size the men with cotton yielding over two-thirds of a bale per acre made labor incomes averaging $1,721.

This same trend holds good for the farmers with over 250 tilled acres per farm. The farms of the group producing the lowest yields

of cotton returned their operators an average labor income of but $430. Where the cotton yields were over two-thirds of a bale per acre, these large farms brought their operators an average labor income of over $4,000. The possibility for a larger volume of business on these larger farms gives greater opportunity to increase profits by increasing yields than does the limited business of the small farm.

Table XXV is strikingly interesting in that it brings out the fact that even though the larger farms do make much higher incomes on the average, many of them yield little or no income. Size of business is undoubtedly a big factor in successful farming, but it is just as big a factor in failure. The large business conducted without attention to yield of crops and management of labor may result in loss proportionate to the size of the business.

In Table XXVI the relation of size of farm and yield of cotton per acre to labor income is shown for the colored tenants.

TABLE XXVI.—*Relation of size of farm and yield of cotton per acre to labor income on 186 farms operated by colored tenants, Sumter County, Ga.*

Tilled acres per farm.	Number of farms and average labor income in each specified yield of cotton per acre group.							
	One-third bale and less.		One-third to one-half bale.		Over one-half bale.		Total.	
	Number of farms.	Average labor income.	Number of farms.	Average labor income.	Number of farms.	Average labor income.	Number of farms.	Average labor income.
50 acres and less	34	100	44	191	18	389	96	196
Over 50 acres	20	124	48	462	22	662	90	435
All farms	54	109	92	332	40	539	186	312

The farms are arranged into two size groups, that of 50 or less tilled acres and that of over 50 tilled acres. Each of these two groups is further divided into three groups, those with cotton yielding one-third bale or less per acre, those with one-third to one-half bale per acre, and those with over one-half bale per acre.

In the case of the tenants with 50 or less tilled acres per farm, one-third had cotton yielding one-third bale or less per acre, and made an average labor income of only $100. The tenants in this same size group with cotton yielding over one-half bale per acre made labor incomes of $389 each.

Out of the 90 tenants with over 50 tilled acres per farm, 20 with cotton yielding one-third bale or less per acre, made a labor income of only $124, while those whose cotton yields were over one-half bale per acre had an average labor income of $662.

Only about one-fifth of these tenants raised cotton yielding over one-half bale per acre. The average labor income of these men was $539. One out of every four had yields of one-third bale or less per acre, and these made an average labor income of only $109.

THE COST OF PRODUCING COTTON.

In an agricultural area devoted almost exclusively to a single enterprise the cost of production per unit for that enterprise may be determined with reasonable accuracy from the data collected through the regular farm-management survey. Such an enterprise is found in Sumter County, where cotton occupies 59 per cent of the crop area and constitutes 89 per cent of the farm receipts. Tables follow illustrating the method used and showing the cost per acre and per pound of lint cotton by tenure and by size of farm and yield per acre.

METHOD USED IN DETERMINING COSTS.

The method used in determining the cost of producing cotton includes five distinct steps. (1) Finding the percentage of total farm receipts represented by the sale of cotton, including both lint and seed. (2) Finding the total farm operating expense. This is the sum of the general expenses (including such items as labor, repairs, feed, seed, fertilizer, insurance, taxes, etc.), the value of the farmer's own labor, and interest on the capital invested. (3) Calculating the amount of total farm-operating expense chargeable to cotton in proportion to the per cent of total receipts derived from cotton. (4) Finding the net cotton expense by deducting the amount received from the sale of cotton seed from the amount of farm-operating expense chargeable to cotton. (5) Finding the cost per acre or per pound of lint cotton, by dividing the net cotton expense respectively by the number of acres in cotton or by the number of pounds of lint cotton raised.

While this method would not be advisable where there are several leading enterprises, yet it has advantages in regions of this nature. Here the crop area that was not occupied by cotton is utilized almost entirely in growing crops to support the mules and labor used in growing cotton.

In Table XXVII are shown in detail the steps taken in arriving at the cost of production on the 160 farms operated by white owners. On these farms the total receipts were $655,526, of which $569,651, or 86.9 per cent, were from the sale of lint cotton and seed. The total general expenses were $408.876, and by adding to this sum the vaule of the farmers' own labor, $70,451, plus $110,184, which is the interest at 5 per cent upon the capital ($2,203,673) invested, equals $589,511, the total farm operating expenses. In prorating these expenses, 86.9 per cent of the total expenditures of $589,511 equals $512,285, the amount of the total operating expenses chargeable to cotton.

TABLE XXVII.—*Cost of producing cotton on 160 farms operated by white owners (Sumter County, Ga.).*

Number of acres in cotton	14,301
Number of pounds of lint cotton produced	4,014,500
Total farm receipts	$655,526
Receipts from sale of lint cotton	$496,950
Receipts from sale of cotton seed	72,701
Receipts from sale of lint cotton and seed	569,651
Per cent lint cotton and seed sales are of total farm receipts	86.9
General expenses (labor, feed, seed, fertilizer, insurance, taxes, etc.)	$408,876
Value of farmer's own labor	70,451
Interest on investment (5 per cent of $2,203,673)	110,184
Total operating expense	589,511
Amount of operating expense chargeable to cotton (86.9 per cent of $589,511)	512,285
Less receipts from sale of cotton seed	72,701
Net cotton expense, or cost of production of lint	439,584
Cost per acre of cotton	$30.74
Cost per pound of lint	$0.1095

From this expense was deducted $72,701, the amount received from the sale of cotton seed, and the remainder equals $439,584, the expense chargeable to the production of lint cotton. This total divided by the number of acres in cotton gives a cost of $30.74 per acre, which divided by the yield per acre in pounds of lint cotton gives 10.95 cents as the cost per pound of lint.

DISTRIBUTION OF COSTS.

The items that go to make up the cost of producing cotton have been separated into four groups: Labor, use of land, fertilizer, and miscellaneous. In Table XXVIII is given the distribution of costs on 268 farms operated by white owners.

TABLE XXVIII.—*Distribution of costs on 268 farms operated by white owners, owners additional, and owners with part rented out.*

Item of cost.	Cost per acre.	Per cent of total cost.	Cost per pound of lint (cents).
Labor	$14.58	48.4	5.22
Use of land	6.52	21.7	2.34
Fertilizer	5.36	17.8	1.92
Miscellaneous	3.63	12.1	1.30
Total	30.09	.....	10.78

The value of labor was the largest single cost connected with growing cotton. It included all labor performed on the crop by

wage hands, share croppers, and the operator or members of his family. The labor cost was $14.58 per acre, or 5.22 cents per pound of lint produced.

The expense for the use of the land was second in importance. It included the cost of repairs, depreciation, taxes, insurance, and interest upon the real estate investment. The cost was $6.52 per acre of cotton, or 2.34 cents per pound of lint.

The item next in importance was that for the fertilizer purchased. It was $5.36 per acre, or 1.92 cents per pound of lint cotton.

All the other costs connected with the production of this crop were grouped under one heading as miscellaneous. There were included such items as interest and depreciation on mules and machinery, ginning, and other minor items, and amounted to $3.63 per acre, or 1.3 cents per pound of lint produced.

COST OF PRODUCTION UNDER VARIOUS TENURES.

Table XXIX shows the cost of producing cotton both per acre and per pound of lint under the various tenures in vogue in Sumter County. In five of the eight tenure classes the cost of production of lint cotton falls within a range of from 10.29 cents to 10.95 cents per pound of lint, or a variation of only 0.66 cent. The cost for all tenures is 10.5 cents per pound and $27.71 per acre.

TABLE XXIX.—*Cost of producing cotton, all tenures, 534 farms, Sumter County, Ga.*

Tenure.	Number of farms.	Tilled area per farm.	Area in cotton per farm.	Per cent of tilled area in cotton.	Yield of cotton per acre in pounds.	Cost of producing cotton per acre.	Cost of producing cotton per pound (lint).
White:							*Cents.*
Owners	160	158	89	56.6	281	$30.74	10.95
Owners additional	38	211	96	57.4	285	27.57	9.68
Owner's part rented out	70	394	133	56.9	274	29.97	10.94
Tenants	49	85	54	63.3	228	23.79	10.47
Colored:							
Owners	12	95	57	59.8	203	20.80	10.29
Owners additional	11	82	49	63.5	218	20.20	9.26
Owners part rented out	8	307	104	62.1	168	19.39	11.50
Tenants	186	59	39	65.5	211	22.48	10.64

In a study of the three tenures with abnormal costs the factors making up these abnormalities are easily detected. The colored owners with part rented out have a cost of 11.5 cents per pound, with a yield of only 168 pounds per acre. This high cost per pound is almost entirely due to low yields per acre, for when farms in this class are compared with farms of equal yields in the colored-owner class the variation in cost per pound almost disappears. The fact that 38 per cent of the cotton area on the owner-part-rented-out farms

returned poor yields makes their yield per acre lower and their cost per pound higher than that of the owner farms with only 27 per cent of their cotton area returning poor yields.

The white owners renting additional land have a lower cost per pound and a slightly higher yield per acre than any other class of white operators. The table shows they have reduced the cost per acre $3.14 and the cost per pound 1.28 cents below that of the white owners. A more detailed study shows this reduction mainly and almost equally due to two items: First, the labor expense per acre of cotton is about $1.50 per acre less; second, the combined charge of interest on capital and rent paid for additional land is over $1.50 less per acre of cotton than the interest charge on the white owners' capital.

We find the colored owners additional occupying the same position among the colored operators as the white owners additional among the white operators, having the lowest cost per pound and the highest yield per acre. They produce their cotton at 1.03 cents per pound less than the colored owners. This difference is accounted for by a yield of 15 pounds more per acre and by a little lower labor cost per acre.

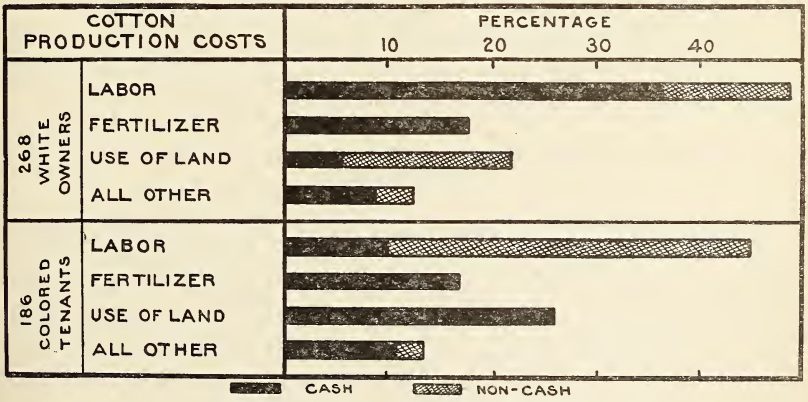

FIG. 6.—Distribution of cash and non-cash costs in producing cotton on 268 owner and 186 tenant farms. (Sumter County, Ga.)

The accompanying chart (fig. 6) is interesting in connection with this cost of production study. The production of lint cotton at 10.5 cents per pound with a yield of 258 pounds per acre means that these men have been well paid for their year's labor and have received a fair rate of interest upon their investment. In case of a lean year cotton could be sold at a figure less than this cost, but it would return less than normal wages for labor performed by the operator and his family and less than a normal interest rate upon the farm investment.

The figure shows the distribution of cost of producing cotton on the owner and tenant farms and the proportion of the cost that was cash and that was noncash. On the owner farms about one-third of the labor was performed by the operator and his family, thus making the cash outlay for labor 36.2 per cent of the total cost. The expense for the use of the real estate was only about one-third cash outlay. The taxes, insurance, and repairs must be met each year, but the other two-thirds of this expense represent the interest charge, which was not cash outlay. The profits these farmers may realize for the use of the land will vary from year to year, depending upon the yields and prices they are able to secure for this crop. The cost of fertilizer represents an expense that must be met each year, and under normal conditions it will equal about one-sixth of the total expense. A portion of the miscellaneous expenses was not cash. About one-fourth of these expenses was for interest and depreciation upon working capital while the other portion was a cash outlay.

In summing up the cost of cotton production upon these owner farms, about 32 per cent of the total was for labor of the operator and his family and interest and depreciation upon the investment. The other 68 per cent was cash paid out for the production of this crop and amounted to 7.35 cents per pound of lint.

In case of the tenants, about 37 per cent was for the labor of the operator and his family and interest upon his working capital and 63 per cent, or 6.70 cents per pound, was cash outlay.

SIZE OF FARM AND YIELD OF COTTON AS FACTORS AFFECTING THE COST OF PRODUCTION.

The table following (Table XXXI) shows the effect of both size of farm and yield per acre upon the cost of production. If we arrange the farms in size groups there is a gradual decrease in the cost of production per pound of lint from the smallest-size group up to the largest-size group, and when the farms are arranged in yield of cotton per acre groups there is also a decrease in the cost of production of lint per pound from the lowest-yield group up to the highest-yield group. This indicates that both size of farm and yield per acre have some effect in reducing the cost per pound of lint. But when the farms are grouped by size of farm the groups are not all uniform in yield per acre, and when they are grouped by yield per acre the groups are not all uniform in size of farm. Therefore, in order to eliminate one of these factors while studying the other, the farms have been grouped according to their size, and each size group separated into subgroups according to their yields per acre. We may now study the effect of size of farm upon the cost of production by comparing the farms of different sizes with the same

yield per acre and the effect of yield per acre by comparing the farms of different yields but of the same size.

TABLE XXXI.—*Relation of size of farm and yield of cotton per acre to cost of producing cotton on 268 farms operated by white owners, owners additional, and owners part rented out (Sumter County, Ga.).*

Size of farm.	One-half bale and less.		One-half to two-thirds bale.		Over two-thirds bale.		All yields.	
	Cost per acre.	Cost per pound lint.	Cost per acre.	Cost per pound lint.	Cost per acre.	Cost per pound lint.	Cost per acre.	Cost per pound lint.
		Cents.		*Cents.*		*Cents.*		*Cents.*
100 acres and less	$29.09	13.84	$34.76	11.97	$41.76	10.58	$34.64	12.05
101 to 250 acres	25.54	12.41	31.69	11.05	37.75	9.52	31.33	10.84
Over 250 acres	23.58	12.27	30.28	10.10	34.33	9.52	28.72	10.52
All sizes	24.73	12.50	31.07	10.53	36.31	9.65	30.09	10.78

THE EFFECT OF SIZE OF FARM UPON COST OF PRODUCING COTTON.

In a study of Table XXXI it will be observed that the very large farms had an advantage over the very small farms in producing cotton at a minimum cost. Many of the farms in each size group also had opportunity to reduce the cost by increasing their yield per acre, as shown when each size group was classified into three yield-per-acre groups.

When the yield per acre was one-half bale and less, the cost per pound of lint cotton was 13.84 cents on farms of 100 acres and less, and as the size of farm increased there was a gradual decrease in this cost. The larger farms with this yield had a cost of 12.27 cents, which was 1.5 cents per pound less than the cost on the small farms.

When the yield per acre was one-half to two-thirds of a bale the cost per pound of lint was 11.97 cents on the small farms, 11.05 cents on the farms of medium size, and 10.10 cents on the large farms. Here the large farms produced cotton at 1.87 cents per pound less than the small farms.

When the yield was over two-thirds of a bale the cost per pound of lint was 10.58 cents on the small farms and 9.52 cents on the medium-sized and large farms. This shows the large farms produced cotton at 1.06 cents less than the small farms.

By carrying the study a little further it will be seen that the cost per pound on the medium-sized farms was 1.43 cents, 0.92 cent and 1.06 cents less in the respective yield-per-acre groups than on the small farms, and that on the large farms this difference was 0.14 cent, 0.95 cent, and zero, as compared with the medium-sized farms. Thus, on the medium-sized farms the cost per pound was something over 1 cent less than on the small farms, while on the large farms it was only 0.32 cent less than on the medium-sized farms.

When we study the cost of cotton per acre, we find the low-yielding group showed a cost of $29.09 on the small-size, $25.54 on the medium-size, and $23.58 on the large-size farms; which was $5.51 less on the large farms than on the small farms. In the yield-per-acre group of one-half to two-thirds bale the cost was $34.76 on the small farms, $31.69 on farms of medium size, and $30.28 on farms of over 250 acres, which was $4.48 less on the large farms than on the small farms.

On the farms with the highest yields of cotton the cost per acre was $41.76 in the group with 100 acres and less, and then as the size of farm increased the cost decreased until in the largest-size group it was $34.33 per acre. This was $7.43 less on the large farms than on the small farms.

There was a greater reduction in the cost per acre between the small and the medium farms than between the medium and large farms. The reduction in favor of the medium-size group over the smallest-size group was $3.55, $3.07, and $4.01 in the respective yield-per-acre groups, while the reduction in favor of the largest-size group over the medium-size group was only $1.96, $1.41, and $3.42 in the respective yield-per-acre groups.

THE EFFECT OF YIELD PER ACRE UPON THE COST OF PRODUCTION.

In Table XXXI the farms are separated into three groups that may be used in studying the effect of yield per acre upon the cost of production.

On farms with 100 or less acres the cost per pound of lint cotton was 13.84 cents when the yield was one-half bale, 11.97 cents when the yield was from one-half to two-thirds bale, and 10.58 cents when the yield was over two-thirds bale. This shows the cost per pound 3.26 cents less on the good than on the poor yielding farms.

On farms of 101 to 250 acres the cost per pound of lint was 12.41 cents when the yield was poor, 11.05 cents with a medium yield, and 9.52 cents when the yield was good. This shows the cost per pound 2.89 cents less on the good than on the poor yielding farms.

On the farms of over 250 acres the cost per pound of lint was 12.27 cents when the yield was poor, 10.10 cents when the yield was from one-half to two-thirds of a bale, and 9.52 cents when the yield was good. This shows the cost per pound 2.75 cents less on the good than on the poor yielding farms.

Thus in the respective size groups cotton was produced at 3.26 cents, 2.89 cents, and 2.75 cents per pound less on the farms having good yields than on the farms having poor yields.

With medium yields per acre the cost per pound was 1.87 cents, 1.36 cents, and 2.17 cents less for the respective size groups than with poor yields, but with good yields the cost per pound was only 1.39 cents, 1.53 cents, and 0.58 cent less for the respective size groups than with medium yields. The cost was almost 2 cents per pound less with

medium yields than with poor yields and about 1 cent per pound less with good yields than with medium yields.

The table shows that the cost of cotton per acre was increased as the yield per acre increased. On the smallest farms the cost was $29.09 when the yield was poor, $34.76 when the yield was medium, and $41.76 on the good yielding farms.

On the medium-size farms the cost per acre was $25.54 when the yield was poor, $31.69 when the yield was medium, and $37.75 when the yield was good.

On the very large farms the cost per acre was $23.58 when the yield was poor, $30.28 when the yield was medium, and $34.33 when the yield was good.

Thus with a medium yield the cost per acre was $5.67, $6.15, and $6.70 more in the respective size groups than when the yield was poor, and with good yields the cost per acre was $7, $6.07, and $4.05 more in the respective size groups than with medium yields.

THE COST OF PRODUCTION ON THE COLORED-TENANT FARMS.

Table XXXII shows the effect of the size of farm and yield of cotton per acre upon the cost of production on the farms operated by colored tenants. While the yields these tenants received were much lower than those of the other farmers, the wide variation in yields gives room for comparisons in the same manner upon these farms as upon others. In order to have a satisfactory number of farms in each group these farms were used in two size groups, those with 50 acres or less and those with over 50 acres. Each of the size groups was then divided into three yield-per-acre groups. With yields of one-third bale or less per acre the cost per pound of lint was 14.39 cents on the small farms and 12.80 cents on the larger farms; with yields of one-third to one-half bale per acre the cost per pound was 11.61 cents on the small farms and 10.22 cents on the larger farms; and with the yields of over one-half bale the cost per pound was 9.36 cents on the small farms and 8.93 cents on the larger farms.

TABLE XXXII.—*Relation of size of farm and yield of cotton per acre to cost of producing cotton on 186 farms operated by colored tenants (Sumter County, Ga.).*

Size of farm.	One - third bale and less.		One-third to one-half bale.		Over one-half bale.		All yields.	
	Cost per acre.	Cost per pound lint.	Cost per acre.	Cost per pound lint.	Cost per acre.	Cost per pound lint.	Cost per acre	Cost per pound lint.
		Cents.		*Cents.*		*Cents.*		*Cents.*
50 acres and less	$19.93	14.39	$24.15	11.61	$28.61	9.36	$23.59	11.68
Over 50 acres	18.26	12.80	22.22	10.22	25.40	8.93	21.99	10.21
All sizes	18.99	13.48	22.71	10.57	26.30	9.06	22.49	10.64

Thus on farms of over 50 acres the cost per pound of lint was 1.59 cents, 1.39 cents, and 0.43 cent less in the respective yield-per-acre groups than on farms of less than 50 acres.

The cost per acre was also less in each yield-per-acre group on the farms of over 50 acres than on the farms of 50 acres or less, being $1.67, $1.93, and $3.21 less in the respective yield-per-acre groups.

In a study of the effect of yields per acre upon reducing the cost of production, the outstanding factor of size must be given consideration. On farms of 50 acres and less the cost was 14.39 cents when the yield was one-third bale and less, 11.61 cents when the yield was one-third to one-half bale, and 9.36 cents when the yield was over one-half bale.

On the farms of over 50 acres the cost was 12.8 cents when the yield was one-third and less, 10.22 cents when the yield was one-third to one-half bale, and 8.93 cents when the yield was over one-half bale.

Thus with the yield of cotton one-third to one-half bale it was produced at 2.78 cents per pound less than with the yield one-third bale and less on farms of 50 acres and less, and at 2.58 cents less on farms of over 50 acres. With the yield over one-half bale, it was produced at 2.85 cents per pound less than with the yield one-third to one-half bale on farms of 50 acres and less, and at 1.29 cents less on farms of over 50 acres.

The cost per acre on small farms was $19.93 when the yield was one-third bale and less, $24.15 when the yield was one-third to one-half bale, and $28.61 when the yield was over one-half bale. On the larger farms it was $18.26 when the yield was one-third bale and less, $22.22 when the yield was one-third to one-half bale, and $25.40 when the yield was over one-half bale.

The increase in cost per acre for the groups yielding one-third to one-half bale over that of the groups yielding one-third bale or less was $4.22 on farms of 50 acres and less, and $3.96 on farms of over 50 acres.

The increase in cost per acre for the farms yielding over one-half bale over that of the farms yielding one-third to one-half bale was $4.46 for the smallest and $3.18 for the largest size group.

On all the colored tenant farms with yields of one-third bale or less, the cost per acre was $18.99, and on all with yields of over one-half bale the cost per acre was $26.30, or an increase of $7.31. The main items in this increase are labor and fertilizer.

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